THE BUILDER

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ARCHITECTURAL EDUCATION

THE long-awaited Report* of the Special Committee on Architectural Education, appointed in June, 1939, has appeared at last, and will be read with interest by all who are concerned with this important subject. The Committee held 35 meetings, in addition to numerous meetings of sub-committees. The Chairman throughout was Mr. Darcy Braddell, and the members included a number of practising architects as well as several heads of the leading schools. Expressions of opinion were obtained from members of the R.I.B.A. Council and from various other persons qualified in this field. The actual editing of the Report was entrusted to Professor L. B. Budden, of Liverpool University, who is to be congratulated upon its admirable and lucid phrasing. A slight bias in favour of the university schools is perceptible in the general trend of the comments and recommendations made. Throughout the document, emphasis is laid upon the work of the architectural schools "recognised" by the R.I.B.A.; and the Institute's own (external) examinations are treated rather summarily in two pages out of a total of 101 pages in the pamphlet.

To quote the Report (paras. 253 and 254):—"The R.I.B.A. has long recognised that no system of examination, detached from an educational context, however well organised that system may be, can equal in value one which is integrally related to a sustained course of full-time study and instruction. In a school a student's progress is closely observed and is tested and recorded at every stage of his course; the majority of his examiners have a direct and intimate knowledge of his strengths and weaknesses. It is not possible for the Institute's examiners to possess a like knowledge of the true capacities of the candidates which come before them, and contacts between examiners and examinees are widely spaced. Until the facilities and advantages of the recognised schools are available to every serious student of architecture, the centralised examinations must be maintained to serve the needs of those who have not taken a qualifying school course. It remains, then, to consider how far they fulfil their purposes and, if it would appear that they might be improved, to make recommendations to that end." The Committee's opinion, after a careful review of the present syllabuses and standards, is that there is nothing seriously amiss, but they suggest a few minor modifications, *e.g.*, the setting of problems of house-design in the Final as well as in the Intermediate.

The Report concludes with 51 summarised recommendations. The first two deal with admission to Probationership of the Institute and state that candidates "should be required to have passed one of the examinations approved from time to time by the Council. They shall be required to have passed in English and Mathematics, but in other subjects in which a pass standard is also required they may be permitted to exercise such freedom of choice as the conditions governing the examination may allow." . . . "In the event of future legislation prescribing a period of national service . . . prospective architectural students should be advised to spend this period, if permissible, in rendering some form of service in connection with building operations, preferably under the direction of a Clerk of Works." An official statement in the public Press this week indicates that compulsory national service is likely to be 18 months from the age of 18. Added to a five-years course at a "recognised" school, this will bring the average student's age up to 24 or 25 by the time he reaches his Final examination; but the Report also urges (Recommendation 24) that a further period of 12 months' "practical experience" be required, after passing the Final examination, before the diploma of A.R.I.B.A. is granted, in addition to six months' practical experience included within the five-years school course!

The Report offers 23 recommendations upon "the School Curriculum," most of which will find general acceptance. Premature specialisation is deprecated, unduly ambitious design-subjects are condemned, "topographical drawing" is preferred to life-drawing, the history of architecture should be taught throughout four years of the course, the student should be prepared for "effective collaboration" with the engineer, facilities for workshop and laboratory demonstrations should be improved, elementary courses in town planning should be introduced in the fourth year. Recommendation No. 27 is "that the Institute in granting recognition to schools should continue in all cases to adhere to its policy of safeguarding the right of its teachers to practise," but No. 30 discourages the appointment of part-time heads of schools. No. 32 suggests that teachers should be trained in "the theory and practice of teaching."

Other recommendations deal with the accommodation and equipment required by a "recognised school," including a plea for its appropriate design and setting. There is a demand for higher salaries and a more generous provision of scholarships. Under the head of "Distribution," the Report discusses the present provision of "recognised schools"

* *Report of the Special Committee on Architectural Education.* Published by the Royal Institute of British Architects, 66, Portland-place, London, W.1. Price 2s. 6d.

in the United Kingdom. It is considered that Scotland is adequately served; and, as Wales is not specifically mentioned, one must assume that the Welsh School of Architecture at Cardiff fills the bill satisfactorily. The establishment of a new centre for Northern Ireland, in the Queen's University at Belfast, is recommended. As for England, it is stated that Brighton and either Plymouth or Exeter are suitable locations for future "Intermediate Schools"; also possibly an additional centre in London, preferably within the L.C.C. area and south of the Thames. The present R.I.B.A. policy of confining recognition to a carefully selected list of schools at strategic points is upheld, and the Institute is urged not to "yield to pressure from any quarter to depart from it."

This summary of the contents of a very long and comprehensive pamphlet is necessarily brief, but may suffice to draw our readers' attention to a publication of considerable importance to all architects and to many other persons connected with technical education.

RESETTLEMENT WITHIN THE PROFESSIONS

THE problem of resettlement within the architectural and other professional bodies allied to the building trade is not an easy one. Those who have the good fortune to be returning as principals or partners to some well-established business have little to worry about so long as that business is still able to carry them on their return. They are the lucky ones, but they are the exception rather than the rule. For others, there is the Government grant scheme which will allow them just sufficient subsistence so long, of course, as they have no other calls on their meagre means than their own personal needs. But for the great majority—particularly those who had risen to a position of comparative financial stability and may, perhaps, have married and even had children—the problem of resettlement is one of *finding a job quickly*. Are the jobs forthcoming?

Naturally, everyone is anxious to do his best. There is plenty of sympathy, just as there has been plenty of talk, but in spite of the promises, in spite of the Government grants and in spite of registers, the jobs are hard to find.

The difficulty, of course, is that the majority of those who have been away are completely out of practice and many of them have very little pre-war experience; whereas those who have been carrying on during the war have kept their hands in and, furthermore, have been able to keep pace with the rapid changes of technique that have occurred during the war years. A man of 27 or 28 who has been away for six years is (as regards technical knowledge) of little more use than an office boy of 19 or 20—at any rate for the first six or nine months in a new job, whereas a man of the same age who has been at his job all this time should be fully qualified by now.

Herein lies the difficulty—what is the remedy?

Mere sympathy will not help a man in this position, neither will a Government grant if he is married and has children, as so many have. Neither will a register; it may get him an interview, but it will not get him a job. No, the only hope of people in this position lies with the willingness of the principals of firms or departments to take them on "on spec." For a few months such people will be no more than passengers, but after the initial period of settling down they should soon begin to pull their weight and, given keenness and willingness to work, they should soon become useful members of an office.

Obviously, an office cannot be run as a charitable institution either in private practice or in an official department. An office cannot be run on staff completely composed of passengers. But it is suggested that, in any office that is expanding at the present time, an effort should be made to employ at least a proportion of demobilised men—say "fifty-fifty," that is, for every man taken on with wartime experience, one should be taken on who has just come back. It should be possible in all but the smallest offices to make some such arrangement as this, and there is no doubt that those offices which do make an effort of this kind will benefit in the long run. The men who are coming back are keen and are prepared to work and will amply reward anyone who gives them a chance. This has already been proved in many offices.

While on the subject of resettlement, there is another point which needs emphasising to the authorities concerned. The Government grant is not fair on the man who has married and begotten children during the war, neither is it fair on the man who is prepared to work hard.

The man who is single can just scrape along on what he would get if he takes the grant and goes to one of the recognised schools. The man who is married can do the same if his wife is prepared to work, but if he has children he could not live on the allowance alone. Furthermore, if he decides to go about it the hard way, to take a job during the day and work on a qualifying course out of office hours—either at evening classes or by correspondence—he is then disqualified for the grant.

The State needs children, and yet the men who have taken the plunge and started a family are those who are hardest hit under the present scheme. The grant for the family man should be more generous than it is at present, and it should not be withheld from those who are prepared to work the hardest. If a man goes to a recognised school he receives the grant; if he takes a job instead, he is refused it. This is reasonable, but if he is prepared to work harder than his friends and to take a job as well as a qualifying course, then he should be entitled to his salary and the grant.

There has been during the recent war, as there was during the last, a lot of high-sounding talk about "welcoming the boys home" and the like. Now is the time to do something practical about it. Even if the Government will not alter their present system of grant payments, at least those in the professions concerned who are in a position to do so should do their best for the returning men—some of whom have not had too easy a time, to say the least of it. Each profession has the responsibility to look after its own.

NOTES AND NEWS

Exhibition of Working Drawings.

An exhibition of architects' working drawings will be held at the R.I.B.A. from Thursday, June 20, to Thursday, June 27, inclusive. The Exhibition will be open daily between the hours of 10 a.m. and 6 p.m. (Saturday 10 a.m. to 5 p.m.), and will include drawings lent by: Messrs. T. P. Bennett and Son (F), Two Hutted Camps; Messrs. Stanley Hall and Easton and Robertson (FF), School of Anatomy, Cambridge; Caius College, Cambridge; British Pavilion, New York World Fair, 1939; Mr. Graham Dawbarn (F) (Norman and Dawbarn)—a selection from the following: Permanent Auxiliary Air Force Station, Manchester; Two Aircraft Repair Factories at Gatwick and Loughborough; Civil Airport Buildings, Birmingham.

Also exhibited will be drawings that a practising architect hands to a contractor, and some very comprehensive sets will be shown. A good idea will be given of the volume of work which must be done by an architect's office to produce a building. A special Students' Evening will be held at the Exhibition on Tuesday, June 25, at 6.30 p.m. All students are cordially invited to attend. It is hoped that the architects (or their representatives) who have lent exhibits will be present in order to explain the drawings to the students. No cards of admission are required.

Imperial War Graves.

British architects are already busy on the new cemeteries being created under the auspices of the Imperial War Graves Commission. These are to be found in every corner of the globe. In the words of Sir Fabian Ware, the vice-chairman, great distances, poor communications and lack of transport have in some cases impeded the work. The Fleets have buried their dead on the shores of every Continent. The graves of the Air Forces are scattered in thousands of burial grounds behind the enemy defences.

In France, Mr. Philip Hepworth, the principal architect for France, has been dealing with the layout and construction of 21 cemeteries for United Kingdom and Canadian Forces. In Italy, Mr. Louis de Soissons is dealing with at least 14 permanent cemetery sites, and is working closely with Brigadier Collingwood, whose headquarters is in Rome.

In Gallipoli, the graves of the 1914 war have suffered a little owing to deterioration in some of the stones and severe weather conditions. The need of repairing slight damage to the New Zealand memorial and on certain parts of the masonry has come at a time when reserve stocks of stone are running low and costs of labour and material in Turkey are at their peak. In Greece, too, a certain number of headstones have been destroyed by shells and bombs.

At Malta, Mr. J. Hubert Worthington, one of the Commission's principal architects, has discussed with the Governor proposals for the permanent marking and maintenance of present-day graves in the island.

In the United Kingdom, beautiful new cemeteries have been built at Brookwood for the Canadians (see this week's issue), and at Brookwood and Madingley, near Cambridge, for the Americans. Several cemeteries near London were damaged by flying bombs and rockets. But the Commission's standard headstone, in its concrete base, showed itself able to withstand the effect of blast, often remaining undamaged when larger private memorials were completely smashed.

PRINCIPAL CONTENTS

ARTICLES.

	Page
EDITORIAL:	
Architectural Education	549
Resettlement within the Professions	550
PLAN FOR PORTSMOUTH. By F. A. C. Maunder. Reviewed by H. V. Lanchester	552
MATERIALS AND METHODS OF CONSTRUCTION FOR HOUSING. Mr. Fitzmaurice's A.A. Paper	560
SOCIOLOGY IN ARCHITECTURE: A.S.B. Papers... ...	562
CORRESPONDENCE	563
WAGES, CURRENT PRICES ...	567
FUTURE CONSTRUCTION ...	571

ILLUSTRATIONS.

CANADIAN RECORDS OFFICE, BROOKWOOD. By Edward Maufe, A.R.A.	555
APARTMENT BUILDING, ATHENS. By P. A. Sakellarios	557
THE FULLER HOUSE, KANSAS	558

Coventry Cathedral Reconstruction Fund.

An account of the plans which have been made to build a new cathedral in Coventry and to provide, in addition, a Chapel of Unity is contained in a booklet, recently published, entitled "Coventry Re-born in Unity." The booklet forms part of the Coventry Cathedral Reconstruction Fund Scheme and depicts perspective views of Sir Giles Gilbert Scott's designs for the new cathedral. It states that an estimate, based on 1945 prices, of the cost of the scheme is £1,200,000. A third of this constitutes the cost of building the cathedral and the remainder is divided between the foundation of a Christian Service Centre and the cathedral, primarily for the provision of staff. The authors of the booklet are the Bishop and Provost of Coventry and the President of the Coventry Free Church Federal Council.

Exhibition of Building Materials.

An Exhibition of Building Materials and Components has been arranged by the Ministry of Works and the Ministry of Health in consultation with the other Government departments concerned, and will be open at Princes Gallery, Piccadilly, London, from 2 p.m. to 6 p.m. on June 12, and daily except Sundays from 10 a.m. to 6 p.m. (Saturdays, 10 a.m. to 1 p.m.) for a period of about six weeks thereafter. It will be primarily for the information of local authorities, technicians and builders, but will be open to the general public from July 1 onwards. The purpose of the Exhibition is to make known the types of goods in production now or soon, from whom they are available, and at what price, and in particular to encourage the use of products conforming to British standards with a view to ensuring certain basic qualities. Both standards which are obligatory for local authorities in relation to housing, and standards which for one reason or another are not so obligatory, are to be displayed.

COMING EVENTS

Wednesday, June 12.

L.M.B.A. Central Area No. 1. Meeting. Guest of Honour, Sir Harold Webbe, C.B.E., M.P., Derry and Toms Restaurant, W.8. 2.30 p.m.

Northern Counties Federation of Building Trades Employers. Half-yearly meeting. Speaker: Mr. W. H. Forsdike, President, National Federation of Building Trades Employers. Darlington.

Thursday, June 13.

Design and Industries Association. The Rev. Lockett, A.R.C.A., on "The Church, the Designer and Church Equipment." Royal Society of Arts, John Adam-street, W.C.2. 1.30 p.m.

The Exhibition should be of considerable value to local authorities in connection with the preparation of their house plans, and admittance will be free of charge to local authorities, etc., during the period June 12 to 29, and no tickets will be required. As the space at the Gallery is limited, it is suggested that local authorities should arrange for their representatives to attend as far as possible as follows: L.C.C., county boroughs, boroughs, metropolitan boroughs, June 12 to 20; county councils, urban district councils, rural district councils, June 21 to 29.

Architect Honoured By Chinese Government.

Mr. Joseph T. Lynch, A.R.I.B.A., of the firm of Jennings, Homer and Lynch, architects, of Brierley Hill, Staffs, who was recently released from the Army, in which he served as a major in the Royal Engineers, has received from the Chinese Government the decoration of Cloud-Banner. The citation accompanying the award refers to Major Lynch's "meritorious services performed during the war."

"Living Communities" Exhibition.

Designed to show the activities of Community Associations and Centres, how they are established, administered and financed, the "Living Communities" Exhibition began its display at the County Hall, London, on June 4.

The Exhibition, which has been prepared by the National Council of Social Service, illustrates how the individuals and voluntary organisations in a locality can co-operate to form a Community Association, the evolution of the community centre and the various types of informal education, hobbies and recreation which go to make up its life. There are also sections devoted to the help which the statutory authorities can give to community centres, including the provision of instructors and premises, as well as grant-aid. The Exhibition will continue until June 15.

Design for New Village.

Blandford Rural District Council has forwarded to the Regional Planning Officer and the County Surveyor plans of the proposed layout for the new village of Milton Abbas. The report, which accompanies the plans, states that in addition to the 20 houses needed for the post-war housing programme an additional 30 would be required to replace houses that were becoming uninhabitable.

The site suggested is on high ground to the north-east of the present village and careful lighting and planting of trees and the use of suitable external materials would avoid any unsightliness in the landscape.

Professional Announcement.

Mr. Walter H. Williams, L.R.I.B.A., architect to British Overseas Airways Corporation, has removed from Bristol to Stratton House, Piccadilly, London, W.1, where he would like to receive trade catalogues.

From *The Builder* of 1846

Saturday, June 6, 1846.

Notices of Contracts.

[We are compelled by the interference of the Stamp Office to omit the names of the parties to whom tenders, etc., are to be addressed. For the convenience of our readers, however, they are entered in a book and may be seen on application at the office of "The Builder," 2, York-street, Covent Garden.]

*** Among the contracts mentioned is the following: "For swords and scabbards for the East India Company."

Perspective of Proposed Extension of Guildhall Square.

Reconstruction Plan covering the Central Designation Area of 778 acres : Final Stage Development.

PLAN FOR PORTSMOUTH

F. A. C. MAUNDER, F.R.I.B.A., A.M.T.P.I., late CITY PLANNING OFFICER AND RECONSTRUCTION ARCHITECT

As might have been expected, the major part of the war damage to the City of Portsmouth has occurred in the western areas adjoining the dockyard and around the town railway station; this has given opportunities for extending the northern end of the dockyard and for very extensive remodelling north and south of the station, the latter section being laid out as a fine civic centre with a square in front of the present Guildhall and an open park to the east of this. Around this park are grouped the civic public buildings, the places of entertainment, and the wholesale markets, the eastern boundary of the whole group being fixed by the broad Southsea Parkway, a new route laid out to provide the main arterial road running northward from the sea-front to the mainland, and ultimately connecting with the great south coast trunk road planned along the Downs to run from Salisbury to Brighton.

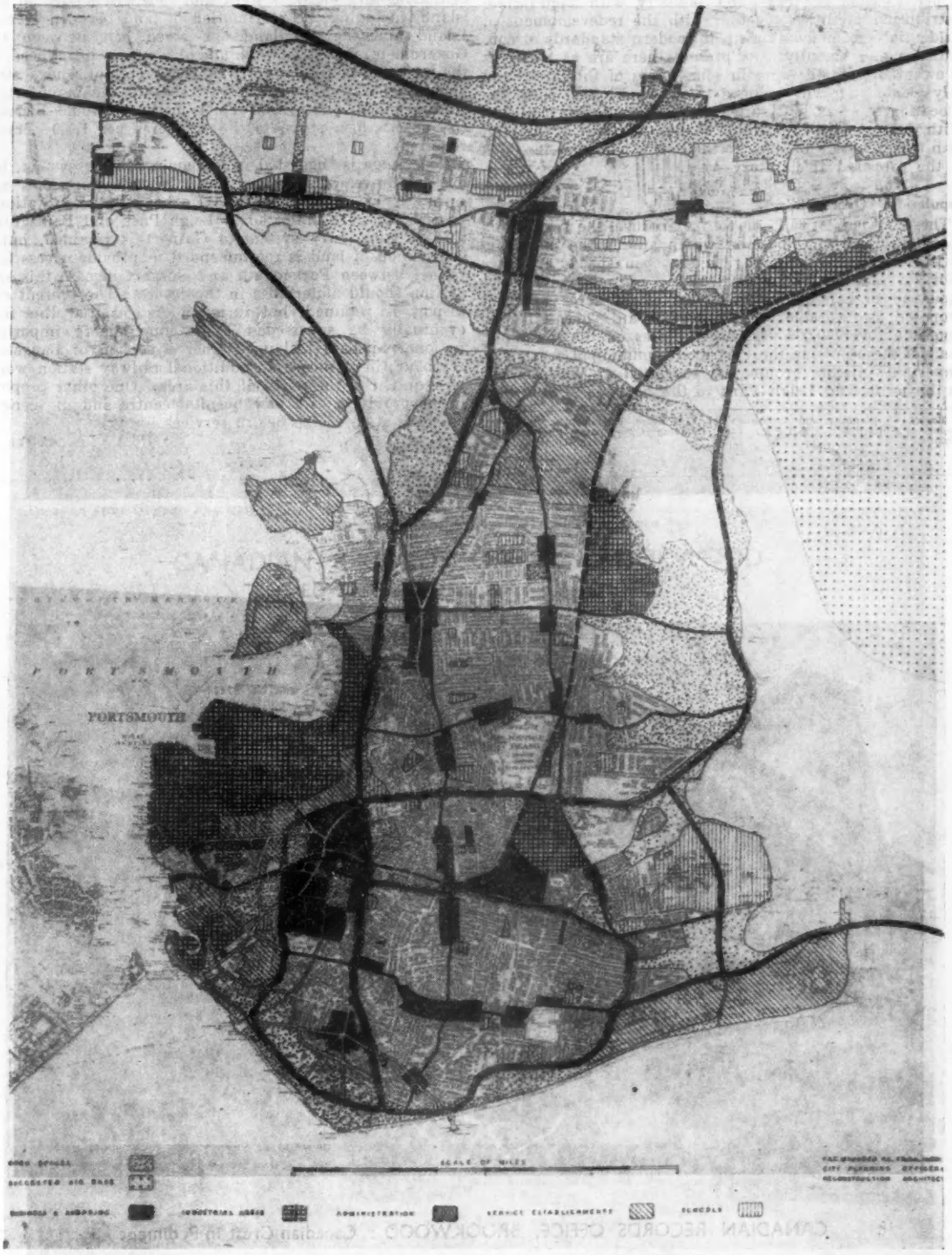
A branch from this route passing north-westward across Horsea Island would take the traffic towards Southampton, and one starting due east and then skirting Langstone Harbour is provided to join the road to London with a clover-leaf crossing where this intersects the south coast trunk road. The main road system is completed by a ring route laid out along the sea front at Southsea and around Eastney to join the London-road. It is suggested that from this ring road

KEY TO LAYOUT OF CENTRAL AREA

G.	EXISTING GUILDHALL CIVIC BUILDINGS
M.O.	MUNICIPAL OFFICES
L.C.	LAW COURTS
P.H.Q.	POLICE H.Q.
R.S.R.	ROYAL SAILORS' REST
P.O.	PROFESSIONAL OFFICES
E.C.	ENTERTAINMENT CENTRE
W.M.	WHOLESALE MARKETS

a branch should run through Hayling Island with a bridge across the Langstone estuary. Supplementing these main routes, a number of additional and improved roads are planned within the town itself, at present served by roads too narrow in terms of modern traffic requirements. It is found that at present safe traffic flow is endangered by too frequent and often awkwardly sited entries of side roads, by the poor alignment of the roads themselves, and by the varied character of the purposes for which the mixed uses of the adjacent areas for the most part are responsible.

The devastated areas total some 160 acres, and in addition there are about 100 acres of seriously damaged property, while other districts are regarded as overdue for reconstruction. Taking these conditions into consideration, it is regarded as clear that a comprehensive replanning scheme is justified, and such a scheme is indicated in the present proposals, which visualise a considered programme for reorganisation and reconstruction. The growth of popula-



CITY OF PORTSMOUTH : Outline Plan.

tion has caused the removal of the original major centre from Old Portsmouth to the vicinity of the Town Station, where the Guildhall stands, but the business and industrial development which followed this growth was forced to accommodate itself as best it might on land already occupied mainly by working-class houses, with the result that the whole area is now an indiscriminate mosaic of uses, none of which enjoys an adequate degree of convenience or amenity.

For this reason a feature of the scheme* must be the proper location of trade and industry with appropriate distribution facilities, together with the redevelopment of residential accommodation up to modern standards of convenience and amenity. At present there are as many as 40 ownerships to the acre in some parts of this area, and only replotting will achieve good conditions, with the allocation of areas best suited to their respective facilities. With this objective, the whole of the older part of the city, with the exception of some to the north, has been included in the proposed Declaratory Area.

Population "Overspill."

These measures will, of course, reduce the population accommodated on the island which affords the main site of the city, more especially as the open spaces are very short of the ideal allowance, giving only two acres per thousand in lieu of the minimum of six acres which is proposed as desirable. Thus there is an "overspill" of somewhat over 40,000 persons to places on the mainland, some of these outside the Portsmouth municipal area. Two important satellite groups are suggested at Waterlooville to the north and Leigh Park to the north-east, but these proposals do not appear to extend to Hayling Island nor to the area around Gosport; this latter seems to have a particular value for housing as it could have access to the dockyard without demanding transport through the main city, besides a pleasant outlet to the coast and the Isle of Wight. Gosport is doubtless visualising a programme for its own expansion, but this should surely be reviewed in conjunction with that for Portsmouth.

Returning to the proposals for additional open space, we note that these envisage an ultimate continuous open green belt along the south, eastern and northern shores of the island, including the reclamation of land between Horsea Island and the mainland. A green belt between the Government industrial zone and the city is introduced by the retention of the Service recreation ground, and a strip along the east side of Commercial-road, the main artery running north and south. These measures would increase the public open space to the six acres per 1,000 persons required.

No change is suggested in the main railway system, but local improvements are necessary in the approaches and arrangement of the Town and Harbour Railway Stations; new stations are indicated at Leigh Park and Paulsgrove. The existing ferry system to Gosport is retained, but a reservation of land is recommended to provide access to a tunnel between Portsmouth and Gosport in case this suggestion should materialise in the future. The present city airport is retained, but it is understood that this may eventually be superseded by a much more important national air-base reclaimed from a portion of Langstone Harbour; in this case an additional railway station would be required to the north of this area. One other proposal is the provision of a new hospital centre and the general reorganisation of the health services.

H. V. LANCHESTER.

* Report of Planning and Reconstruction Committee, Portsmouth. F. A. C. Maunder, F.R.I.B.A., A.M.T.P.I., City Planning Officer and Reconstruction Architect.

CANADIAN RECORDS OFFICE, BROOKWOOD : Canadian Crest in Pediment

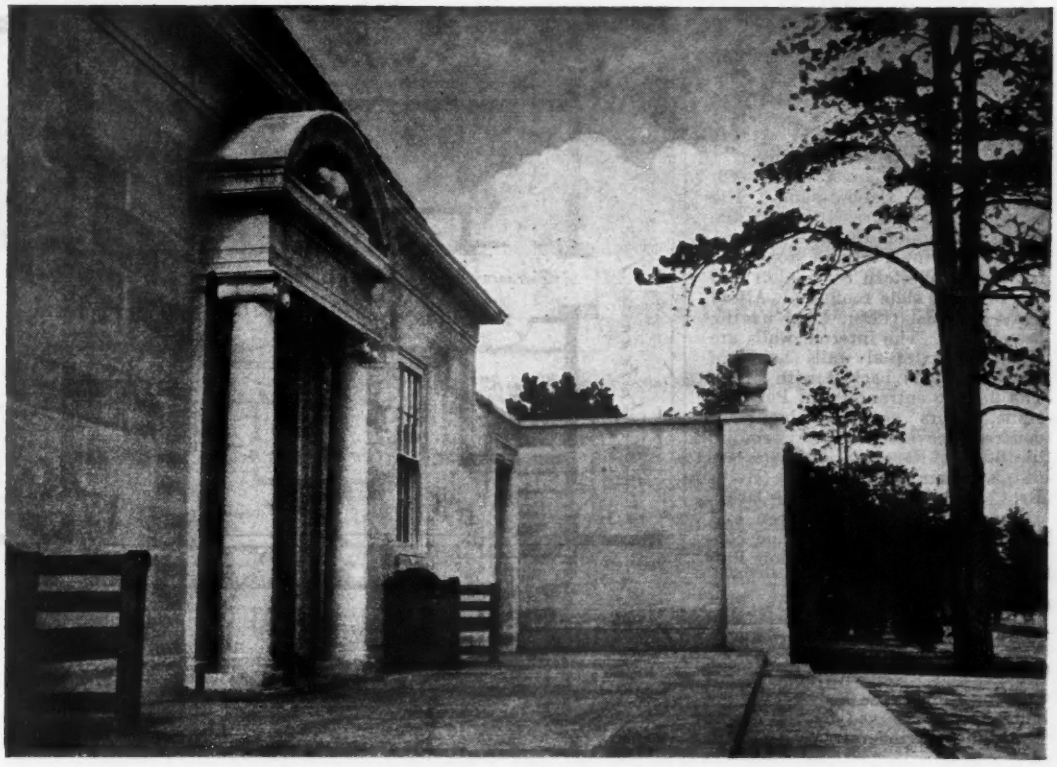
ESMOND BURTON, Sculptor. EDWARD MAUFE, A.R.A., Architect

Canadian Army Overseas Photographs.

The Entrance Front. *Below:* Detail of Entrance.

CANADIAN RECORDS OFFICE, BROOKWOOD

EDWARD MAUFE, A.R.A., ARCHITECT



View from West Terrace.

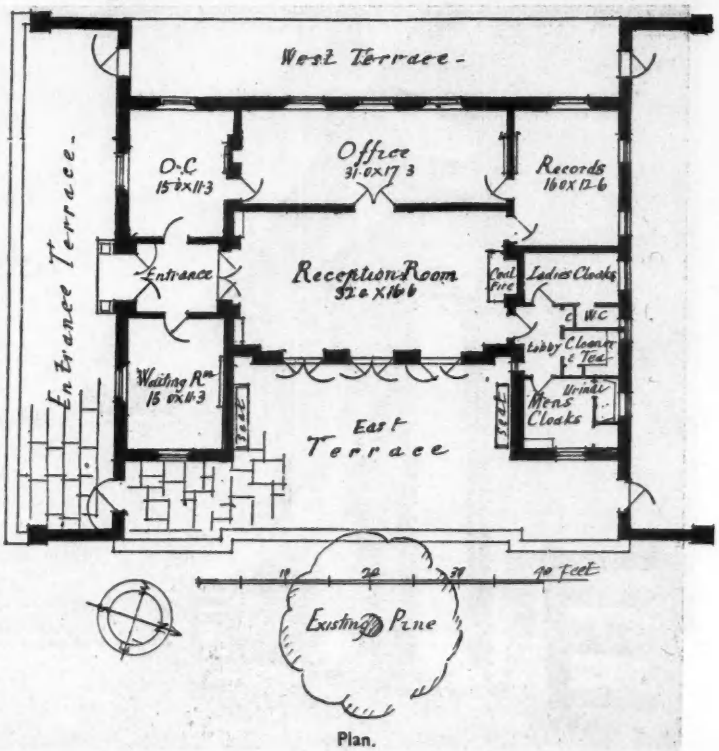
CANADIAN RECORDS OFFICE, BROOKWOOD

ERECTED BY THE CANADIAN GOVERNMENT as a Records Building and reception room for visitors, this building stands in the large Canadian Military Cemetery at Brookwood. The cemetery has been laid out by the Imperial War Graves Commission, and the building is a gift from the Canadian Government to the Commission. The work has been carried out by the Royal Canadian Engineers themselves, only the Portland stone ashlar (South Western Stone Co.) and the Delabole slate roofing (J. Alfred Pratt and Co. (1928), Ltd.) having been sublet. The internal walls are of brick, external walls being of Portland stone backed with brick. The floor to entrance is of Portland stone, floors generally being of concrete covered with Corbulin, but floors of the reception rooms are of Canadian maple wood (Hollis Bros.).

The stone carving has been executed by Esmond Burton, and consists of Canadian Crest (Lion Passant with Imperial Crown holding Maple Leaf) in pediment with Canadian motto "A Mari usque ad Mare" on frieze below; capitals to entrance columns with maple leaves; and vases with lions' heads to wing walls. The Beaver over the entrance was carved by one of the Canadian Engineers.

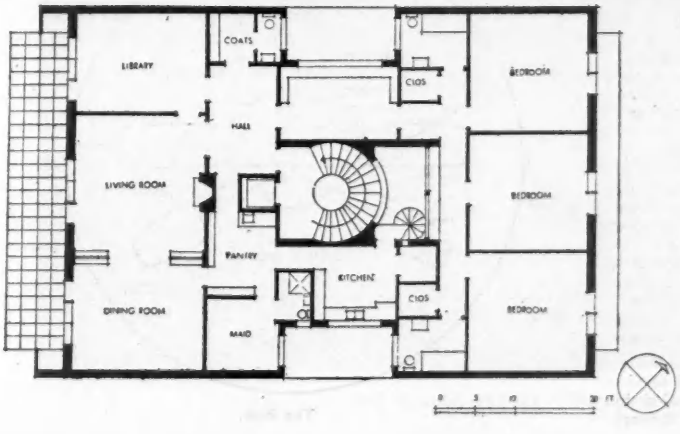
The metal french windows with interlaced "Cs" in fanlight are by Crittalls, and the wrought-iron gates to wing walls by Wainwright and Waring, Ltd.

The planting around the building (as to the other cemeteries at Brookwood — British, Dominion, Belgian, Czech and Polish) has been designed by the architect.

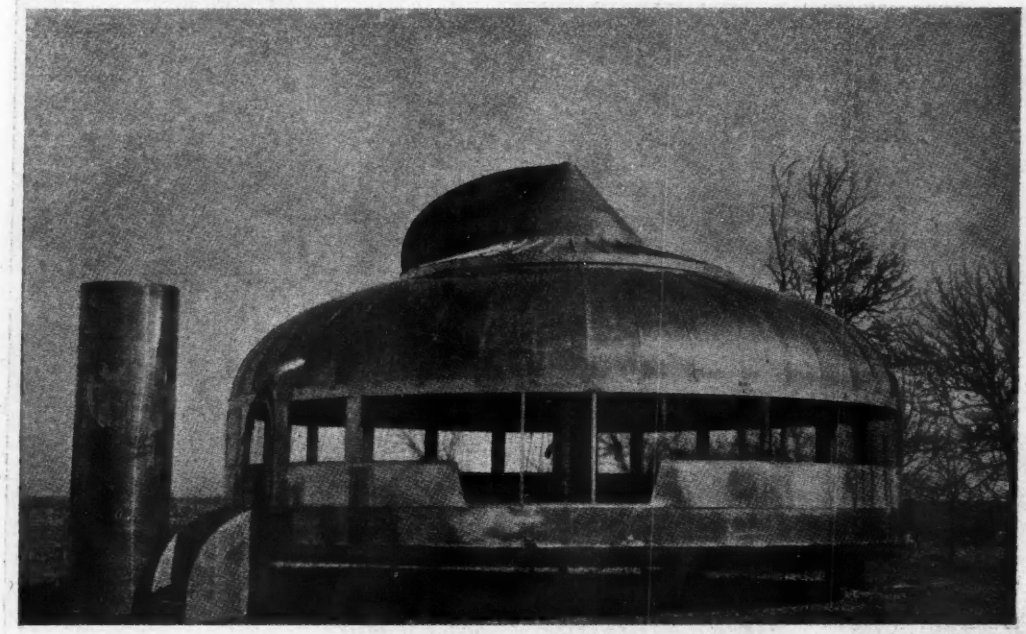


Plan.

APARTMENT BUILDING, ATHENS. P. A. SAKELLARIOS, ARCHITECT



SITUATED AT KOLONAKI, AT THE FOOT of Lycabetos, with a view towards the Phaleron Sea, this building comprises a ground floor with five garages and five upper floors each planned as a single flat. The reinforced concrete frame has an infilling of a patent block faced with porcelain cement, insulated internally. The heating system is oil-fired, with radiators concealed under the windows. All materials, excepting steel and installations, are local. The cost in 1939 was £11,000, and the rent for each apartment is £10 a month.



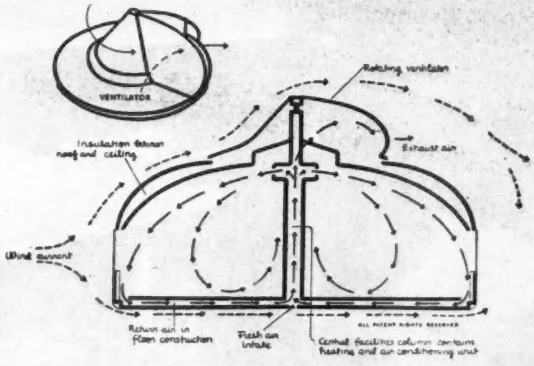
The Exterior: The entire house (except for the kitchen equipment) can be transported in the container seen on the left, which measures 16 ft. by 4½ ft. in diameter.

THE FULLER HOUSE

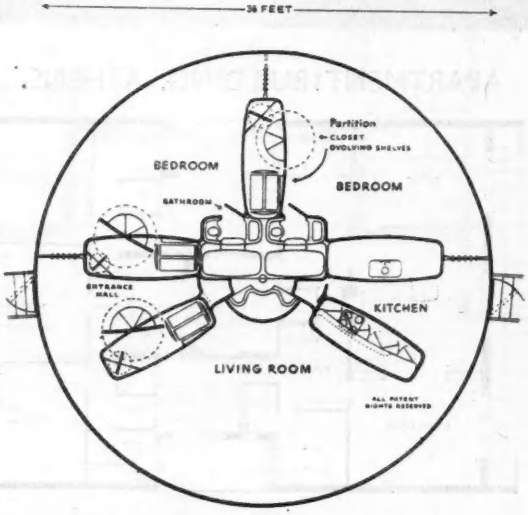
THE FULLER HOUSE, ILLUSTRATED IN THESE pages, has been planned by R. B. Fuller as a lineal descendant of a hexagonal structure designed by him in 1927. In its construction he has secured the co-operation of Beech Aircraft, Wichita, Kansas, whose plant is estimated to be capable of turning out 50-60 thousand units annually. The first house has been completed and erected.

The house is revolutionary in many ways. Containing four rooms and a two-bath unit, the structure (which is circular in plan) weighs only 8,000 lb., and is priced at $6,500 (about £1,625 at present rates). Tension, rather than compression, is the basic structural principle. The body of the house hangs from a central mast made up of seven stainless steel pipes; this represents the sole compression element of the structure. From it hang three circular rings connected by tension cables. The rings provide rigidity and act as a framework for the metal skin of the roof. Cables, triangulated from the mast, weave through the successive rings and are then brought down to support the floor. Cable ends terminate in steel anchor rods placed at intervals around the house. Since the floor is actually suspended, neither walls nor partitions have any load to bear, the entire weight of the structure being transferred to the central mast. Arched roof carlings, grooved in section, rest directly on the compression rings; supporting the butt of two roof sections, they act as inside gutters and expansion joints. Between the outer skin and the cable network is one or more layers of aluminium insulating foil. Roof carlings lead to a circular gutter which runs around the house inside the walls at the edge of the roof. From this gutter, rainwater drains through interior downspouts to a second circular gutter near the bottom of the house, from which it is discharged. The house is 36 ft. in diameter and 16 ft. high at the centre. A continuous "Plexiglas" window gives light. Another 200 sq. ft. of floor space can be gained by adding a balcony across the top of the living-room partitions.

The central mast is the structural and service core of the house. To its base, concealed by partitions, are connected all utilities. Through



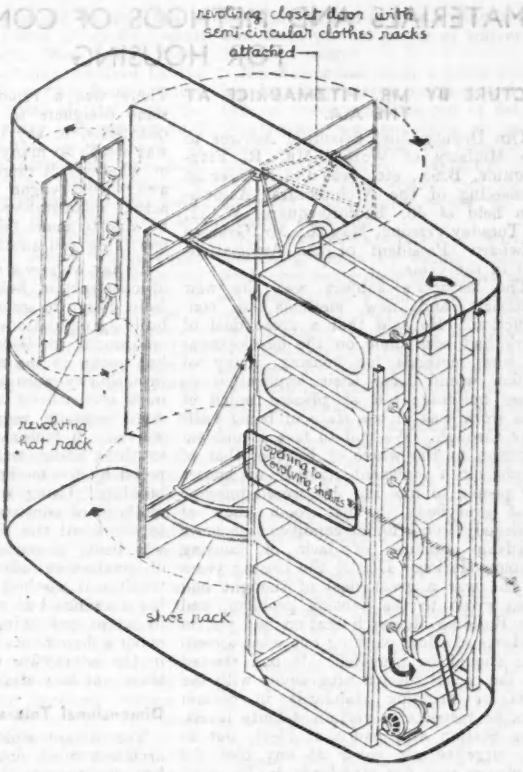
Heating and Ventilating Diagram.

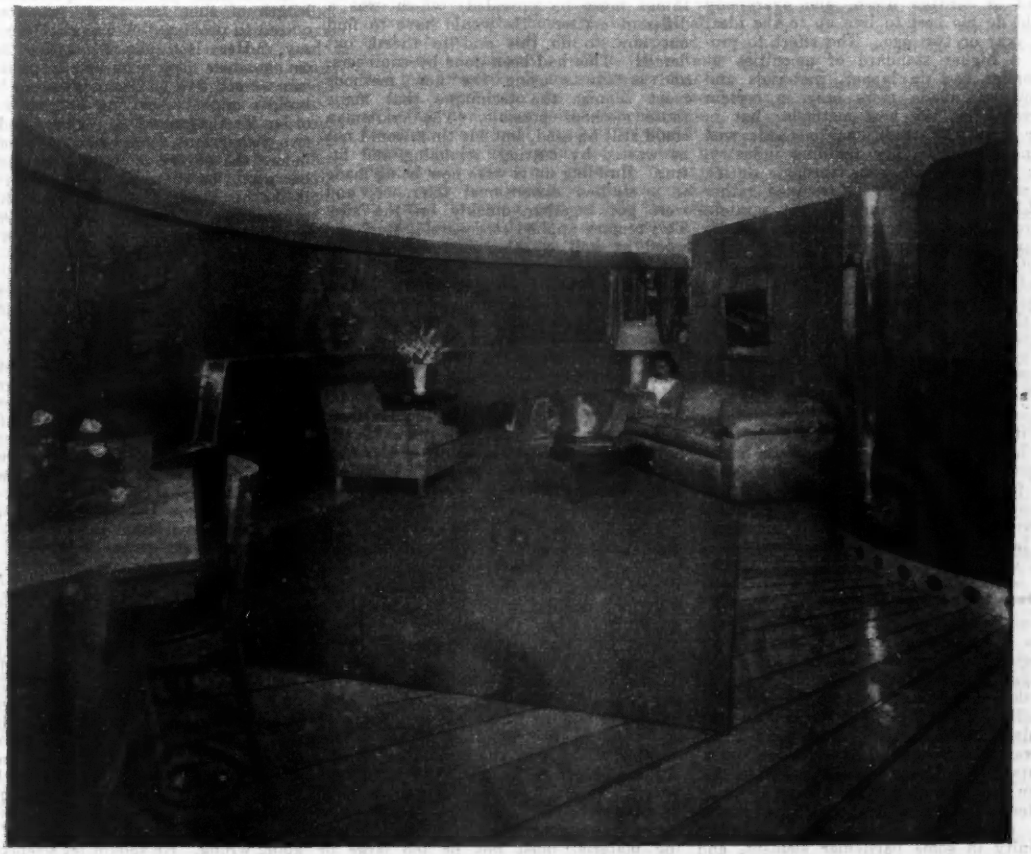


The Plan.

it operate the air-conditioning and heating systems. From it concealed light is diffused across the curved ceiling, thus illuminating all rooms without glare. The outer vertical skin is half plastic and half aluminium. Three bands, one the "Plexiglas" window strip, overlap each other from top to bottom. Sections of the upper aluminium band can be hand-lowered to open screened areas for ventilation when air-conditioning is not required. The built-in screens are of rust- and mildew-proof plastic. Plastic curtains are carried on a concealed, built-in curtain track. FABRICATION AND ERECTION.—These are two clear-cut operations. Exclusive of service facilities, the house includes only 50 types of parts. The exterior skin is shipped flat, curved to shape on the site. No part weighs more than 30 lb. Factory operations are confined to the manufacture and packing of parts, but these include many devices to facilitate site assembly. Holes for the two types of fastenings used, bolts and "blind" rivets, are gang punched at the plant and coloured for identification. Parts are packed in reverse order of assembly, so that they are removed in proper sequence. Using trained service gangs and mechanised equipment, erection is estimated to take 160 man-hours.

The design of the internal equipment is interesting. Especially ingenious is the cupboard with revolving doors, with semi-circular clothes racks attached. This is illustrated on this page. The bath-room is stamped out of aluminium and comprises bath, w.c. and lavatory basin. Each house has two such units. Ventilation is by the revolving cone on the roof, which always faces into the wind. The cone draws up the used air, fresh air entering through ducts in the roof and beneath the house. Our illustrations are taken from the *Architectural Forum*.


revolving closet door with semi-circular clothes racks attached
revolving hat rack
clothing to revolving shelves
shoe rack



THE FULLER HOUSE: The Living Room.

MATERIALS AND METHODS OF CONSTRUCTION FOR HOUSING

LECTURE BY MR. FITZMAURICE AT THE A.A.

THE Deputy-Chief Scientific Adviser to the Ministry of Works, MR. R. FITZMAURICE, B.Sc., etc., was the lecturer at a meeting of the Architectural Association held at 36, Bedford-square, W.C.1, on Tuesday evening, May 26. Mr. Graham Dawbarn (President of the Association) was in the chair.

The lecturer's subject was the new materials and new methods of construction. He said that a great deal of work had been done on the development of new methods for housing, many of which would have their application to other building; but at present much of this work was in the state of being half-way through. We had to face a problem common to the whole of Europe, that of producing a sufficient number of houses for people to live in. He would imagine that everybody in that room knew of somebody living under conditions of acute hardship because of lack of housing accommodation. During the closing years of the war a great deal of thought had been given to the housing problem, and the Building Research Station had put in a Homeric effort working out what amenities should be provided. It had started on the reconstruction programme with the idea of bringing standards in certain specific respects to certain definite levels. The Station still had that ideal, but in the urge to get cover at any cost the tendency was for standards to be overlooked or written down, and everybody should do his best to live up to the ideal of a year or two ago. The effort to provide a higher standard of amenities at a smaller cost in labour, materials and money was made more easy in certain directions by the new methods; but in other directions traditional methods won "hands down." The building industry, after what it had gone through during the war, was now being revived rather quickly, but, starting from scratch, different parts of it were getting back to normal at different rates. In certain directions the construction side was going ahead, but the materials were not coming forward rapidly. When one material fell short it was necessary to switch over to another, and in effect methods of production had to be somewhat fluid. Another matter was the great importance of fuel: coal was required in the production of a good many building materials, and it was required for domestic use after the houses were built. We were beginning to reach a stage where the question of fuel affected the production of materials, and a material which demanded a lavish use of fuel in its production might be less attractive than another where that was not the case.

Factors Influencing Design.

Architects would naturally look at things from the point of view of the building designer. Various factors influenced design. There was the whole range of physical requirements, such as strength, stability, durability, fire precaution and insulation against temperature and noise. It was well always to have these requirements in mind, but in the attempt to get down to actual quantitative terms it would be found that in a number of cases it was not possible to provide full statutory amenity in some particular element, and if this was the case the architect should try to give a little more somewhere else. There was a reluctance on the part of some designers to come down to actual quantities, to say that a certain material was worth so many British thermal units, or whatever it might be; but if they got away from vague terminology and gave actual quantitative measures they would be able to make fair comparisons between one thing and another.

To-day we saw a number of new methods of construction being tried in all stages, from design to going into production, and building regulations, having been made for traditional methods, caused a difficulty; but owing to the needs of the time those in authority were approaching this matter in a sympathetic way, and some of the more onerous requirements were being waived. A factor which the designer had to think about was the requirements imposed by the method of production of the building. Using some of the alternative methods of construction it was necessary to think all the time of how the article was being prepared, because the method of production affected design. By the traditional method the architect set out his drawings but relied on the craftsman to adapt one thing to another, e.g., to make a door fit its frame, and so on. But in the alternative method of construction there was no craftsman.

Dimensional Tolerances.

The design must be precise, and the architect must not set down dimensions but dimensional limits within which the things must be provided, which was a different matter. He would have to find out how to do this and to thresh out details. This had been done by engineers, and architects using the new methods must acquire the technique that made those methods possible. The craftsman could still be used, but his time would not be wasted by cutting, trimming and fitting. Building units were now being made to a studied dimensional tolerance, and were got together quickly on the site. This remark applied to concrete, steel and wood as well as other materials. What would be the effect on design? If the designer produced designs with a certain tolerance of dimensions he must find out whether by normal process of manufacture it was possible to keep to the tolerance he dictated. A problem of the future was that the designer would not be able to set to work on the drawing board without first finding out what were the limits of accuracy to which a certain process could be worked. It might be asked what would be the effect on the quality of design; would the designer be severely cramped as an æsthete?

Another point not to be neglected was that the components of the building had to be collected together on the site, and this introduced a number of problems. You were not dealing with bricks, metal or wood, and when you reached the point where you wanted piece number A.63, nothing else would replace it; because in its position it was the only one that was any use. A clever designer would keep down the number of his pieces. Think of an estate of five hundred houses where nothing would meet the case except A.63: if it could not be supplied the job might have to stop. Another thing to be kept in mind was how the various components were to be manipulated. Chunks of building material must not be too large or heavy to be handled. Taking these things together you must have a different kind of organisation to produce designs. The man who conceived the first idea must get with the man who provided the components and the one who was going to erect the building. Those three had to sit down together: they could not work independently of each other. The old idea of sitting in an office, designing a building and passing that design out to others was gone: designer, fabricator and erector must dovetail together at the first stage.

Production Limitations.

It was worth while thinking of the factors influencing the production of components and materials. Here a number of things came to mind. First of all, what was the size of unit of production available, e.g., were you going to produce ten, twenty or a hundred houses a week? You might find the whole scope of the project depended on the scale of the unit of production. Someone might come along saying, "Here is a particular piece, I can make it cheaper and better than ever before; but it requires an order for a million before I start." Another man might say, "I have an article I can make in my backyard at the rate of a couple a day." The important thing was that the designer should ask how many of a particular article would be required: it was not much good starting until he had a clear idea what the production was to be. If you were using modern machines you made certain labour-saving tools and devices, the cost of which must be spread over the job; therefore, the cost of production depended partly on the scale of operation, and the extent to which you could write off the cost of tooling was of the utmost importance.

Allied with this was the question of the length of time for which you were required to produce. A manufacturer might say, "Here is a magnificent floor and we can produce five thousand a week; but can we sell five thousand a week?" The builder might be willing to give a direct order for that number, but if asked for a two years' contract might reply that long before the expiry of such a contract timber would be cheap enough for him to use it for his flooring. This meant that the proposed tooling charges for the new floor would have to be spread over a short period and would therefore make it too expensive.

An extremely interesting point was that with alternative methods of production there was a tendency to make very large chunks of stuff. With traditional building the mass of material consisted of bricks, bits of wood, cement, gravel—nothing was very big. With alternative methods the chunks of material had to be bigger, and the transport from factory to site of building was of great importance. It cost money to lift a bulky article on to a lorry, transport it from where it was to the place where the building was erected and discharge it from the lorry.

Transport.

Transport being so important a matter, the position of the place of manufacture must be considered. It might be advisable to have one central very highly organised factory or, alternatively, to have a number of smaller and individually less efficient plants nearer to the building sites. Finally, when building by traditional methods, there was at the back of the architect the widespread knowledge of craftsman, builder's foreman and clerk of works; but when building by the new methods he had not that advantage. He was stepping out into the unknown, and there was always the possibility of things going wrong. He should let science be his guide, and when in difficulty write to the Building Research Station. He must put

in an efficient service of testing and inspection; it was no longer possible to tell how good a thing was by merely looking at it. In the case of paint, for example, it might be necessary to go right back to the manufacturer's works to find out whether it was within the limits of properties which would prevent corrosion. If testing and inspection were not faithfully done, in ten years' time the architect might be sorry the new methods and materials had been used.

Discussion.

MR. EDWARD ARMSTRONG, F.R.I.B.A., who moved the vote of thanks, said the technique of building that had been put before the meeting was a frightening one. A very important point made by the lecturer was the reference pinned to the symbol A.63, which boiled down to this, that the aim of production, if it was to succeed, must be that the number of components should be the minimum. He (the speaker) would go one further and say that the number of types of design, to be a practical proposition within the next three years, must also be a minimum in number. There were not a high number of students in the Architectural Association likely to find their professional careers in the design of mass-produced houses which they would never see built, because obviously if there were five really satisfactory types meeting what were considered to be the five principal variations in need, there would be great difficulty in introducing a sixth type. Different parts of the country would have different types, but throughout the length and breadth of the land there would probably not be more than a dozen different types of mass-produced houses. Nevertheless, however successful the new technique proved, there would always be alongside it houses carried out by more traditional methods, and it was his belief that were the same study, rationalisation and investigation, scientific and otherwise, given to the development of more normal components such as bricks and their proper use in building, results would be obtained as startling as those obtained by the newer forms of construction. The enormous increase in the production of aircraft under the stimulus of war had led people to think that something similar might happen in building, but Mr. Fitzmaurice had shown that the problem was not quite so easy. In the case of aircraft production the components had always been made in factories laid out for the production of a particular component. That could also be done in housing; but in aircraft production the components had been taken to a factory with ideal conditions for their assembly, and the assembly of house components would not be like that. Sites of buildings were not of necessity near road or railway. Then the components would be larger than those of aircraft, and if they had to be brought by road they would suffer the risks that had to be faced in transporting them across the country. They would arrive at a site probably covered with mud, they would be stacked by people perhaps untrained in stacking them, and they would then be assembled on a concrete or other foundation. On this base there was no guarantee that the tolerances were such as they were supposed to be. The problem was a difficult one. There was every reason to encourage development, but we ought not to be disappointed if we did not succeed in turning out thousands of first-class things as we had done during the war. For some time in the future architects would be concerned with the housing problem, but the time would come when architecture would again diversify into all kinds of needs, and the priorities now attached to houses would be attached to schools, hospitals, places of worship, social service buildings, etc. Was it to be hoped that the form of technique evolved for the simple problem of erecting houses would solve in terms of speed all the other developments the country was waiting for? There was the matter of tolerance. A structure made of components must have points of contact, i.e., joints. Joints in houses, particularly in kitchens and bathrooms, were evils in themselves and brought other evils. With traditional materials or certain others which might be mass produced, it was possible to seal crevices by welding or by some form of cement or mastic joint; but it was a source of anxiety in housing that however great the care taken, dry construction which was not followed by some form of very careful sealing might bring trouble in its train.

MR. LEIGH-BREESE (Secretary of the Guinness Trust), seconding the vote of thanks, spoke from the point of the building owner. He said the proposal was a colossal one. He did not think anybody could say how many houses would be required within the next twelve months. From one small estate in North London he had recently had brought to him eighty-three urgent applications, and looking up the records he had found that on that estate since 1944 there had been only fifteen changes of tenancy.

MR. I. G. EVANS said that an important step forward had been made a year or so ago by the Building Research Station in the production of quantitative standards by which to judge different forms of house construction. It could be reasonably said that a house conforming to those standards would provide adequate shelter, but it was necessary for the house to be built at a moderate price, and this fact brought in its train considerations such as the lecturer had put forward. Some might say that in a few years' time we should not need to bother about new forms of construction, because traditional materials would be cheap and in use again; but he was not sure that it might not be useful to apply some form of alternative construction in an effort to bring cost within the reach of people in the lower income groups. It was for architects to find a method of providing homes with the minimum of national effort.

MR. F. T. SCORER said the lecturer had given students a great deal to think about as to how one could be educated and trained for this almost entirely different job. He had got the impression that the working drawings of to-day would be of but little use in the type of construction now envisaged.

MR. EDWIN WILLIAMS said Mr. Fitzmaurice's lecture had sounded like a solemn warning against playing with the subject if you did not mean business. If the new methods were applied in the London area they might not be in conformity with the Building Act, but at the County Hall there was a power of waiver, and if the builder could convince the officials there that the new method would stand the test on such matters as stability, weather resistance, and insulation against temperature and noise, this waiver might be given.

THE PRESIDENT said he had been interested but slightly scared. Architecture had always owed much to the science of its age, but it was an art and would always remain an art.

The vote of thanks was unanimously given.

THE LECTURER replied to a number of the points raised. As to Mr. Williams's reference to the L.C.C. power of waiver, the scientist had to give a definite opinion, and there was no power of waiver in the forces of nature.

Mr. Scorer had made a point that working drawings were a problem, and the old type of them would be out of date. But the position was not quite so bad as it might seem, because the change would not come suddenly. Working drawings like the old ones would continue to be necessary, but there would be supplementary ones also.

Mr. Evans had raised a particularly interesting point by asking whether the work now being done on alternative forms of construction would prove transient or not, and had suggested that important results might be obtained by brushing up old methods by the modern broom of science. He (Mr. Fitzmaurice) felt that by putting intensive study on to old methods evolution might be speeded up: in all probability a rational mixture of old and new was the sort of thing that would survive and yield enormous results. Before the war, the sort of evolution we were following was not providing houses which poor people could afford, and the effort now to find a way of doing that by art or science was a great stimulus to everybody concerned in this research.

Mr. Leigh-Breese had made a point about clients. Clients had not been mentioned in the lecture, but the building owner was a grim figure never far from the mind of people engaged in building; and in the work of the Research Station he had been kept in view. In such matters as strength, stability and fire protection the client was always in mind, and similarly with production. The effort was to spare him as much as possible, and at the Station they remembered they must not be carried away by enthusiasm for a project which would be too expensive for the client.

Mr. Armstrong had suggested that the technique being contemplated was a rather frightening one, but he (the speaker) repeated that we should not get a sudden change. The new technique would be evolved in various stages. There was a tendency for things to be a little more complicated, but if by more thought on the job more and better houses could be provided, the opportunity should not be thrown away.

A.A. SCHOLARSHIPS

THE Council of the Architectural Association announce the award of the following scholarships in architecture at the Architectural Association School of Architecture:—

The Minter Open Entrance Scholarship (value £90), R. G. Harris, Cambridge.

The Sir Walter Lawrence Open Entrance Scholarship (value £90), P. J. Lord, Welwyn Garden City.

The Metal Window Scholarship (presented by the British Metal Window Manufacturers' Assoc., Ltd.) (value £75 p.a.), Miss D. R. Leigh, Edgware, Middx.

The Pilkington Scholarship (presented by Messrs. Pilkington Bros., Ltd.) (value £75 p.a.), T. De Pont Davies, Whitstable, Kent.

The Cement and Concrete Association Scholarship (presented by Cement and Concrete Association) (value £75 p.a.), M. D. Willis, Worcester.

The Natural Asphalte Council Scholarship (presented by The Natural Asphalte Mine Owners' and Manufacturers' Council) (value £50 p.a.), D. H. Hiscock, Gravesend, Kent.

The Northern Aluminium Scholarship (presented by the Northern Aluminium Company) (value £50 p.a.), J. A. Holderness, Watford.

The Patent Glazing Scholarship (presented by the Patent Glazing Conference) (value £50 p.a.), J. R. Plincke, Woldingham, Surrey.

It has been decided to extend the date for submission of applications for the Senior Entrance Scholarships until Monday, July 22, 1946. Particulars and forms may be obtained from the Secretary.

SOCIOLOGY AND ARCHITECTURE

PROBLEMS OF CO-OPERATION

A PAPER summarising much of the work accomplished up to the present by the Architectural Science Board Study Group I (Building Needs) was read at a meeting of the R.I.B.A. on Wednesday, June 5, by MR. MARK HARTLAND THOMAS, M.A., A.R.I.B.A. We take the following extracts from the paper :—

This paper is the result of a close and well-maintained co-operation among the members; all have made valued contributions to the group discussions, and several have written the statements on particular topics that have formed a basis for this paper.

Both significant words in the title must be taken in a broad sense. Sociology means the general science of human society, and includes the study of all types of human organisation, in relation to their activities and their environment. Even the human aspects of economics are not excluded. Architecture for our purpose includes construction, planning and design of buildings and their surroundings, individually and in groups of any size up to the city.

Social Trends.

The architect who looks to sociology for systematic information about current social trends in a form handy for his purpose will not find much at his disposal. Some examples, however, have been selected here; in these, as in many others, some conclusions that have practical importance may be drawn without difficulty.

(*a*) *The Decay and Growth of Social Institutions.*—The most obvious architectural example that comes to mind is the transformation of the Revivalist Chapel into the cinema. It appears that in our time new social institutions arise more rapidly and more vigorously than old ones decay.

(*b*) *Change in Patterns of Distribution.*—The change which came over shopping in the inter-war period is an interesting example which might be followed up. The purchase of necessities is now accompanied by what is in effect large-scale social entertainment in which the qualities of the exhibition, the café and the cabaret are combined with the simple act of obtaining necessary food, clothing and equipment. The store now becomes a palace of entertainment.

(*c*) *Changes in the Pattern of Government and Social Services.*—Two conflicting trends may be observed; centralisation demanding ultimately architectural transformation of the capital and regional subcapitals; and decentralisation involving the provision of minor administrative buildings in the fabric of new urban growth everywhere.

(*d*) *Mobility.*—The increase of mobility increases enormously the demand for the special services of pleasure resorts, makes possible certain aspects of centralisation, and therefore the provision of central institutions serving only a small proportion of the population of any one place.

(*e*) *Family size, Structure and Sentiment.*—Changes in family size and structure may affect considerably the demand for houses of different sizes and different designs. Similarly, the number and types of houses available in turn affect the structure and size of households. Changes in family sentiment may also have their effect. The inter-war flat with its minute kitchen may have helped to create the demand for restaurants. The great attention now being given to the post-war kitchen may have the reverse effect. At the same time eating out is a social habit which has been given great impetus by the war and rationing.

(*f*) *Changes in the Size and Structure in Industrial Units.*—The size of industrial units will obviously affect the size of residential units which serve them, the pattern of their labour force will affect the broad social patterns of family life and these may affect the demand for houses of different types, institutions of different patterns, and communities of different design. The same is obviously true in agriculture.

(*g*) *The Garden City.*—This is perhaps the chief outcome of a trend that has its origin in several different sources.

Flexibility in Building and Planning.

When assured by a sociologist that change or development is a central feature or " law " of the life of societies, and that in future changes may increase in pace and range of effect, the architect may not unreasonably ask for further light. He might ask : " Can we not meet the case by introducing some flexibility into our constructions so that they may be easily and closely adjusted to the changing needs of those for whom they are built? " And he might go on to explain that, while the technical problems involved are in many cases of extreme difficulty, he would put all he knows into finding the solution, if the sociologist for his part would provide a sufficiently detailed account of the social and economic changes that would certainly occur during, say, the next 30 years.

Point might be given to this challenge by considering a few selected cases that belong to recent history. Maternity wards and hospitals, built when it was still good form for babies to be born at home, are now overcrowded with mothers who can get neither private nurses nor domestic help. Prison buildings remain unsuitable for modern methods of treatment in spite of ingenious adaptations. The large family house, quite unsuitable for present-day family size and domestic arrangements, is very hard to divide into convenient flats. Our road system, planned for horse-drawn traffic, has proved itself quite unsuitable, and difficult or impossible to remodel, for fast motor vehicles.

The Conflict in Taste.

In the study of social trends and social change few topics can be of greater interest for the architect than this. He is frequently made aware of it when dealing with individual clients; he is sometimes frustrated by it when working for business firms, municipal committees, and other public or private bodies. Sociology can assign a leading part to two elements in the situation—the time lag in social change, and the persistence in a large national society of distinct and even opposed cultural traditions.

There is always a time lag in the acceptance of social change by the various regional occupational and other groupings and layers in a large society. Ideas penetrate slowly; perhaps most people are impervious to new ideas after age 25; a new generation has to accept them as it grows up. In a society where people have many specialised interests, architecture is itself a specialised interest, and few outside the profession—or sometimes, shall we say, outside a young vigorous group in the profession—can be in touch with the latest developments, even where there is the most obvious technical and æsthetic mandate for them. It may take the period between studentship and positions of professional authority to gain acceptance for a new idea, a new style.

Will the conflict of cultures continue in our buildings in this country? In this respect, the present period, this post-war period of building is very exciting. For the first time architects and others are beginning to see that we cannot solve our problems by turning away from the present, and at the same time that a purely utilitarian solution, even a scientific utilitarianism, is not enough. What we require is the grace of the past with the convenience of the present. It may well be that the universal introduction of new materials and techniques—developed and used by architects, engineers, and other technicians—may provide the basis for a new and vital development in design and symbolism that will fuse the hitherto conflicting traditions.

" Existence Minimum Standards."

At times like the present, when there is an urgent call for building of dwelling houses on the largest scale, the suggestion arises (perhaps inevitably) that, to meet the emergency, houses that will just reach the minimum needs of existence should be provided at great speed, leaving till later the more leisurely building of houses that provide for a full live—easier, more spacious, more social, more cultured. The sociologist is inclined—both *a priori* and as a result of accumulated experience and knowledge—to foretell disaster for these attempts. Hastily erected " existence minimum " buildings, placed on sites that happen to be readily available (quite apart from the technical defects that they sometimes show) raise a crop of fresh and difficult social problems. Workers find transport to work slow and costly; mothers of families must make daily excursions to far distant shops; young people have no handy means of outdoor or indoor recreation; school accommodation for children is distant or crowded or absent. The fact that all these and other problems have been encountered on permanent new housing estates, where planning was defective, strengthens rather than weakens the argument.

Community Problems.

It is often suggested that there is an intimate connection between community life and architecture; it is said that " Architecture is an expression " (or even " *the* expression ") " of community life "; and from this by an easy transition comes the idea that good architecture accompanies and expresses a community life that is in some sense good; bad architecture indicates a " bad " community life. With this is often linked the conception of " great ages " in architecture. However, one will be inclined to agree that successful architecture is in general associated with some unity, some common purpose or body of ideas, some socially expressed urge, or drive, or trend in a human group or community; but success may be at different levels.

In recent years, however, this sound sociological view has given rise to a good deal of confused thinking which has had, and may still have, too much influence on the work of architects and planners. The amorphous growth and social disintegration of modern urban units have drawn attention to the marked contrast between these in their outward aspect, and surviving examples of building and planning that embodied and expressed an active community life. Neglecting—or in ignorance of—the complex social situation in which such community life and " community " architecture developed, many good people seem to have reasoned : " Community life must be renewed; let the architect and planner renew it for us by providing an appropriate shell or setting."

Objection at once arises on general grounds. If we agree that in the " great

ages" architecture and social life formed a unity, we must also agree that each reinforced the other, but we have no conclusive evidence that either created the other. Inner and outer life worked together in harmony; material culture and social life achieved an almost perfect fit. Such a unity cannot be artificially constructed. No doubt the architect, the administrator, the captain of industry and the social worker can help or hinder; essentially, however, it is something that happens, like Kipling's ship that found herself.

It may be more effective, however, to examine one or two present-day problems of community life in detail. Those selected here are "Transport and Density" and "The Neighbourhood Unit."

Transport and Density.

A major issue in town planning is that between spaciousness and accessibility. We find on the one hand that substantial, well-provided old towns, affording good accessibility to their inhabitants, are compactly built, and on the other hand that sparsely populated, spacious towns lack the facilities that can be provided only for a great number of people.

However, modern transport has made it possible for the population of a big town or conurbation to be housed at low density, spread over a wide area, and yet to partake in the opportunities provided at the centre.

But the reliance on accessibility by transport can be carried to excess; inhabitants of inter-war housing estates had to travel to school, to work, to do everyday shopping, even to the pub. Accessibility by bus or train is sufficient for some, but inadequate for other matters. In other words, accessibility must not be measured by the same yardstick for all purposes. We may distinguish three accessibility rings, as it were, of different radii: and not bare accessibility but *convenient* accessibility must be understood:—

(1) Accessibility by transport—the "Circulation Area."

(2) Accessibility within walking distance.

(3) Accessibility on tap, in every house.

The "Neighbourhood Unit."

In many recent statements and reports that carry great weight in the planning world, emphasis is laid upon the "neighbourhood unit" as a basic element in the urban pattern. Such a unit is envisaged as containing 5,000 to 10,000 inhabitants, and is to be as far as possible self-contained in respect of work, leisure and social provision of all kinds; and it is to be obviously separated from other units by open space or in some other manner.

Two distinct objectives seem to be in view in the advocacy of this unit. It provides a convenient visual pattern and numerical grouping, and gives a useful measure for the provision of public services and institutions. It also is thought to assist the solution of the modern problem of social disintegration and lack of the sense of community by providing a comparatively small unit in which the individual will inevitably be impelled towards neighbourly attitudes and actions. The first objective seems legitimate and rational; the second confused and impossible of attainment.

Appointment of Sociologists.

Our final task is to attempt an answer to the question how, in the day-to-day tasks of building and planning, architect and sociologists may be brought together and find ways of giving their best service to each other.

First comes the problem of making available to the architect, and to the public whose support he needs, the sociological material already in existence; and the related problem of research and study aiming at the assembly and ordering of fresh materials. This is a task for the trained sociologist; the first step is to provide more trained sociologists, the second to procure their employment by local authorities. From now on every planning team should include a sociologist. Once the sociologist is universally recognised as part and parcel of the local team, he becomes a sort of "Medical Officer" of Environment with duties not unlike those of the Medical Officer of Health.

L.M.B.A.

LUNCHEON IN HONOUR OF THE LORD MAYOR

UNDER the chairmanship of the President (Mr. E. W. Garrett) a large number of distinguished guests gathered at the Savoy Hotel, on Monday, at the invitation of the London Master Builders' Association to do honour to the Lord Mayor of London (Sir Charles Davis). The company included the Minister of Works (Mr. Tomlinson), Mr. Ralph Assheton, M.P., the Mayor of Westminster (Mr. E. H. Keeling, M.P.), Mr. Sheriff F. T. Beer, Alderman and Sheriff F. M. Wells, Sir Hugh Beaver, Mr. W. H. Forsdike, Mr. R. H. Francis, Alderman C. W. Key, Mr. R. L. Roberts, Mr. Howard Robertson, Sir Thomas Sheepshanks, Mr. T. S. Tait, Lord Latham and Sir John Wrigley.

In welcoming the Lord Mayor and his Sheriffs, the PRESIDENT said that it was some three years since the Association had last had the pleasure of welcoming a Lord Mayor, who on that occasion had been not only a builder but a member of the Association. If the present Lord Mayor could not quite claim that distinction, he was the next best thing, in that he supplied a material, cement, which builders could not do without. The Lord Mayor had, in fact, written the Centenary Record of the Portland cement industry.

Nearly 300 years ago, the London builders were called on to rebuild London. With their limited resources the task must have appeared even more onerous than it did to builders to-day, yet with the present quality of architects and builders, one could claim that the City would be rebuilt in the proper way.

In response, the LORD MAYOR, after saying that it was through the help of the master builders of the country that he owed his proud position of Lord Mayor, spoke on the progress of the City plans. The Corporation's plan, prepared as long ago as July, 1944, had been sent to the Government for approval, since when the Corporation had appointed consultants to work out the scheme. Their interim report would be considered by the Court of Common Council. The desire of the City Corporation was strong to assist in the rehabilitation of the many firms of long standing who had lost their premises through enemy action; they were placed in great difficulty until there was an approved plan. When the plan eventually was approved, the legislation aspect had to be worked out, so it was clear that much had yet to be done.

The MINISTER OF WORKS, speaking on behalf of the guests, said that he was told on taking over the Ministry that he was to act as a sort of godfather to the building industry. He took on the job cheerfully, not realising what kind of children they were! But the more he met them the more he realised that they would get the job for the country done. As for the City plan, he was sure that the Ministry of Town and Country Planning had sent it back for a good reason, and felt that the final draft would show the plan to be all the better for the advice of the experts.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Fluctuations in Prices of Materials.

TO THE EDITOR OF *The Builder*.

SIR,—I have been wondering how soon it will be before the leaders of the building industry tackle the subject of the relationship between manufacturers of building materials and the trade proper. Is it not high time an effort was made to stabilise prices of materials, at least for stated periods?

As an estimator, I think that the manufacturers have helped to make a difficult period much more intricate by failing to assist the industry by the simple courtesy of giving proper notice of increases in cost of materials. No doubt there are a great many reasons for this, but even so I think it is time somebody read the riot act to the merchants.

To a very large extent the manufacturers have been helping to make all estimates (both large and, most especially, small ones) something very much more than an even chance gamble as to the cost of the material element. The labour gamble is bad enough in all conscience. How much longer, then, are the builders to be worried about day-to-day increases in materials?

At the present time a merchant can take an order and in a few weeks' time (sometimes days only) casually notify the buyers of an increase in cost which he appears to think the builder or his client should pay without question.

Well, should they? And, if so, how much longer have they to put up with this state of affairs? After all, it is the builders' money which is being used to finance these deals.

The dangers of estimating on a rising market are too well known to be enumerated here, but I cannot understand why it is not possible for manufacturers to stand on their own feet for a change. Can they not be coaxed into stabilising their own sections of the industry to some small extent, and by this means enable them to give the trade as a whole much more real assistance than they are at this very moment?

The risks being run in the manufacturing world at the moment cannot be compared with those being run by the builders themselves, and if the merchants do not know this it is high time they were told.

C. RANCE, A.I.O.B.

Maidstone, Kent.

A Vanishing Heritage.

TO THE EDITOR OF *The Builder*.

SIR,—If all specimens of Georgian architecture were to be mutilated—as Sir Neville Pearson, in a letter to *The Times*, tells us Pelham Crescent is to be mutilated—in order to adapt them to modern ideas of light-admission, then we should also have to say goodbye to Nash and his contemporaries for ever. One might as well remove the spire of a city church for casting a shadow over an adjacent warehouse.

I suggest that not only should Pelham Crescent's balustrade be left alone but that plaques should be placed on the walls to commemorate notable men who have lived in the Crescent—notably Edward John Trelawny, the famous friend of Shelley and Byron—as has been the L.C.C.'s custom for years past throughout London.

G. B. J. ATHOE, Secretary.
The Incorporated Association of Architects and Surveyors.
75, Eaton-place, Westminster.

HOUSE CONSTRUCTION

POST-WAR BUILDING STUDIES NO. 23

THE Second Report* of the Interdepartmental Committee appointed by the Minister of Health, the Secretary of State for Scotland and the Minister of Works has recently been published.

The first report of the Interdepartmental Committee, presented to the Ministers in October, 1943, was published in 1944 as the first of the series of Post-War Building Studies and has become known as the Burt Report. It was divided into three parts, of which the first dealt with suggested basic technical considerations (strength and stability, thermal insulation, etc.), the second with alternative forms of house construction used in the inter-war period, and the third with materials.

In February, 1944, the Committee was reconstituted under the same Chairman, Sir George Burt, and its present membership is representative of all sides of the professions of building and architecture. Under its terms of reference the Committee advises Ministers on materials, on methods of construction and in particular on the experimental work in connection with house building which is being carried out by the Ministry of Works.

The Committee's Second Report, now published, describes and comments upon prototypes of eight methods of construction. The selected types are :—(1) Braithwaite Unit Frames (steel frame with cladding of brick or asbestos cement sheeting); (2) Keyhouse Unibuilt (steel frame to which are clipped asbestos cement trays); (3) Glasgow Corporation Foamed Slag Flats (walls of storey-height foamed slag concrete units); (4) Birmingham Corporation Steel-framed House (steel frame with cavity wall of brick and foamed slag concrete slabs); (5) Airey New Duo-Slab House (precast concrete posts and panels); (6) Howard Steel-framed House (steel frame with foamed slag concrete and asbestos cement walls); (7) Boot Beaucrete Concrete Houses (concrete frame, cavity concrete walls); (8) B.I.S.F. Steel-framed Houses (types A and C) (steel frame, cavity walls of brick and breeze or foamed slag blocks).

All types are considered by the Committee to be suitable for a 60-year loan provided (in some cases) certain conditions are fulfilled. Attached to the report are three appendices dealing with (a) protection of steel against corrosion, (b) internal condensation in houses whose roofs and walls are of composite construction, and (c) fire hazard.

Since the Interdepartmental Committee gave consideration to the systems referred to in their second report, the Airey and Howard houses (types 5 and 6) have been the subject of the Ministry of Works development groups, and the Ministry of Health has made reference to the Braithwaite, Howard, Airey and B.I.S.F. systems of construction (types 1, 5, 6 and 8), with others not referred to in this report, in circular 182/45, issued to local authorities on October 16, 1945. In this local authorities were asked to inform the Ministry whether they wished to proceed with the erection of permanent prefabricated houses and if so, how many of each type they would like to build.

Arrangements have been made for the large-scale production of B.I.S.F. and Airey houses (types 5 and 8) and these houses are being made available to local authorities in large numbers under schemes prepared by the Ministry of Health. It should be noted, however, that in both cases there have been variations from the house as described in the report. These are not significant in the Airey House, the main difference being the replanning of the house so that it is specially suitable for rural areas and the use of a pitched roof of traditional type in place of the flat roof described in the report. In the B.I.S.F. house the structural changes are more substantial. The house is based on the A type described in the report, but it has been modified to meet the comments made by the Committee and to increase the speed of erection. The main changes are that the external cladding of the ground floor is now rendered on expanded metal instead of brick, while the walls are lined internally with plaster board, and the same material is used for the ceilings.

*Post-War Building Studies, No. 23: House Construction. Second Report of an Interdepartmental Committee appointed by the Minister of Health, the Secretary of State for Scotland and the Minister of Works. Published by His Majesty's Stationery Office, price 1s. 6d. net. (1s. 8d. post free).

LONDON CHURCHES

PLANS FOR NEW BUILDINGS

THE Bishop of London, in an article recently printed in *The Times*, surveys the questions of war damage and population changes, and outlines diocesan plans for new buildings and new parishes. Dr. Wand writes: "We have found as a result of a very thorough survey that to provide a church and church life for every 10,000 people in these parts we have 35 churches to build. Churches must be built in: Kingsbury, Northolt Park, Staines, Cranford, Ruislip Manor, Hanwell, Hounslow, Harlington, Mill Hill, Whitchurch, East Hounslow, Harrow Weald (1), Whitton, Hanworth, Perivale Park, Southall, Edmonton, Hayes, Northolt, South Harrow, Colindale, Perivale, Sudbury, Edgwarebury, Northwood Hills, Heston, Preston, Wembley, Harrow Weald (2), Hammersmith.

"We are allowing for five more to serve probable housing developments. The task is made somewhat easier by the fact that the Reorganisation Areas Measure of 1944 gave to the Ecclesiastical Commissioners powers of parochial reorganisation which enable them to decide not to rebuild churches in central London which, owing to the population shift, may have become redundant, and instead to found new parishes and build new churches in other districts where the needs are greater.

"A terrible toll was taken of churches and church buildings by the war. Out of 701 churches 624 were damaged, and of these 91 were completely destroyed. If all church property is included, the total loss was over 10 per cent., no less than 87 per cent. of all the buildings having suffered damage of some kind.

"Many of the churches can be and will be rebuilt or repaired. Among well-known churches in various parts of the London diocese which we intend to restore are Old St. Mary's, Stoke Newington; Finchley Parish Church; St. James's, Muswell Hill; St. Mary Abbot, Kensington; St. Mary's, Twickenham; St. Alban's, Holborn; St. James's, Piccadilly; St. Clement Danes; St. George's-in-the-East; and the parish churches of Poplar and Stepney. In all we intend that 50 of our bombed churches shall be completely rebuilt, and another 494 repaired."

Price Control of Steel Scrap.

The Minister of Supply has made the Control of Iron and Steel (No. 49) (Scrap) Order, 1946, which came into force on May 20, and withdraws from price control certain forms of steel scrap containing tungsten. Copies of the Order may be obtained from H.M. Stationery Office, York House, Kingsway, W.C.2, or through any bookseller, price 1d.

THE NEW TOWNS BILL

SUGGESTED AMENDMENTS

THE Town and Country Planning Association, 28, King-street, London, W.C.2, has issued a memorandum on the New Towns Bill. The memorandum states that there are three points on which the Executive of the Association would suggest amendments at the Committee stage.

(1) *Agencies for Developing New Towns.*—(a) While the Government sponsored corporation is agreed to be appropriate in most cases, some new towns could be conveniently built by corporations sponsored by local authorities, thus drawing on local enthusiasm and enterprise and making for devolution of financial responsibility. The Minister should have power to set up this form of corporation where he thinks the local circumstances make it preferable and the local authority or authorities are willing. (b) A few new towns could and should be built by authorised associations as defined in Section 35 of the Town and Country Planning Act, 1932—(companies or societies providing the equity capital with limited dividends, obtaining mortgage loans from public funds, subject to proper safeguards). Emulation between authorised associations and public corporations would be a good thing for both and stimulate initiative and efficiency.

(2) *Borrowing Powers of Corporations.*—While in the first few years the corporations cannot be expected to balance their accounts, it is important that they should feel fully responsible as financial units, and should, as soon as possible, stand on their own feet. They must be independent of detailed Ministerial or Treasury control. Under Clause 12 the expenditure and programme of development is subject to approval by the Minister with the concurrence of the Treasury when advances are made. This puts much responsibility at the centre, which may be inevitable so long as the new towns require an annual revenue grant.

When they reach the stage that charges on further expenditure are covered by further revenue, they ought to be in a position to borrow (from the Public Works Loan Board or elsewhere) on the security of their estates, which would absolve the Ministry or Treasury from the responsibility for details of further expenditure, and promote the responsibility and real autonomy of the corporations. Thus, after the first few years, they could be as autonomous financially as a local authority borrowing on the security of its rates. Loans would still need approval, but the approval of secured loans does not involve central responsibility of so detailed a character. This is considered most important for the status of the corporations and for full responsibility for development policy.

(3) *Housing Subsidies.*—As the Bill stands, the corporations are treated as housing associations, and can raise the Exchequer contribution for housing, and, where a local authority is interested, the rate contribution from that authority. Where no local authority is interested, the Minister of Health should be empowered to make an additional grant equivalent to a rate contribution—as in the precedents of the Scottish Housing Association and the Special Areas Housing Associations. In the Second Reading debate it was stated that the equivalent of such rate contributions would, in fact, be made as part of the deficiency grants to the corporations. It is suggested that it would present a clearer picture if the equivalent of the rate contribution were made the normal housing subsidy procedure.

FEDERATION OF MASTER BUILDERS

W.B.A. SCHEME CRITICISED

MR. H. SYMON (Principal Assistant Secretary, Ministry of Health) deputised for the Minister (Mr. Aneurin Bevan), who was indisposed, at a luncheon organised by the Federation of Master Builders (London District) on May 30, at the Connaught Rooms. The regional President, Mr. R. W. Ricketts, was in the chair.

In the course of a speech which was punctuated by noisy interruptions from several parts of the room, MR. SYMON said that he was deputising for a Minister who had a reputation as a politician, but whom he (the speaker) knew as a man who was leading the country in the right direction, and who knew that every single agency must be harnessed that could contribute to the crying need, which was for the supply of houses to let to those that needed them. The Minister had been described as an enemy of private enterprise. That was wrong; he was straining every effort to see that builders, large and small, were able to make a contribution to the national effort, as was witnessed by the recent Circular* giving the terms on which he was prepared to consider proposals for the erection of houses by small private builders.

Speaking on London war damage repairs, the speaker expressed the feeling that builders had done their best to keep costs within the lowest limits. There were still considerable arrears of houses awaiting repairs—over 300,000 in London—and on these the Ministry were trying to get away from the vicious system of cost-plus to a firmer basis. As for the rebuilding of destroyed houses, these had the highest priority. There was another direction in which builders could help—that was in the adaptation and conversion of existing properties as housing. He was conscious that there was a scheme for the allocation of materials which had been causing not a little trouble. It was not the Ministry of Health's scheme but the Government's, but the Ministry was sponsoring it. He was conscious, again, that the scheme was too rigidly drawn, and efforts were now being made to make fittings and materials available to urgent jobs.

Prefabricated Housing.

Mr. Symon then spoke on the prefabricated house or (as he preferred to describe it) the house built on non-traditional systems of construction. We were (he said) striking out on an entirely new enterprise in this country, using science and new techniques. A particular point was that such systems for the most part consisted in building three or four walls in a technique other than brickwork. It might well be (and here he was expressing a personal view only) that such housing might fall into two parts, with the large builders preparing the site, laying foundations and erecting the external structure, and the smaller builders finishing the house, putting in the equipment, and so on.

MR. CHARLES CARTER, proposing a vote of thanks to the speaker, said that private enterprise builders, while trying to see the other point of view, were entitled to express their opinions; they felt that the housing scheme was not working. Builders found that the Government was virtually owning them, in so far as it controlled labour, materials and price, and to that extent they were nationalised. Controls might be necessary, but they needed to be administered by practical men. Had the Government taken the builders into consultation before launching the W.B.A. scheme, a workable scheme might have been devised. As it was, the only effects of W.B.A. were to stop work and raise prices.

If the Government's desire was to help the small builder, let it remember that not all small builders were house-builders; many were dependent on industrial and maintenance work. He hoped it would be remembered that it was as important to look after working conditions as to safeguard living conditions. A recent interview with Mr. Tomlinson (Minister of Works) gave rise for hope that some materials and equipment would be released for works of maintenance.

* *The Builder*, May 10.

ILLEGAL BUILDING

CONTRACTORS FINED

Sir Lindsay Parkinson and Co., Ltd., contractors, of Shaftesbury-avenue, W., were, at Bow-street, on May 29, fined £50 for carrying out work not specified in the Defence (General) Regulations. Rediffusion, Ltd., radio equipment manufacturers, Regent-street, W., who ordered the work to be done, were fined £100, with £10 10s. costs.

Both defendants pleaded guilty.

Mr. John Maude, K.C., appeared for Sir Lindsay Parkinson and Co., and Mr. Valentine Holmes, K.C., for Rediffusion, Ltd.

Mr. H. A. K. Morgan, for the Director of Public Prosecutions, said that in December, 1944, Rediffusion, Ltd., took a block of offices known as Carlton House, Regent-street. The premises were in a dirty condition, and a Brixton firm of decorators carried out work costing £315, for which a licence had been granted. The company subsequently got Sir Lindsay Parkinson and Co. to do further decorations and minor repairs at a total cost of £926. No licence for this work was applied for, and none would have been granted. On July 7 a building inspector called at the premises and saw a representative of Rediffusion, Ltd., who told him they thought they were entitled to have this work done under their maintenance licence.

Mr. Valentine Holmes said that Rediffusion received complaints from their staff about rats, sanitation, a dangerous lift, and fire menace due to inadequate electric cables. The excessive sum spent was built up on a succession of orders, beginning with one for £62. When responsible officials of the company realised that more had been done than was allowed they immediately stopped the work, before the Ministry of Works inspector appeared on the scene. If, at outset, they had started on a proper plan, they would have known the amount of work needed was excessive, but they went about it in a haphazard way.

Mr. John Maude said that Sir Lindsay Parkinson and Co. had carried out building operations under control to the extent of 30 or 40 million pounds without previous complaint. A representative of Rediffusion, Ltd., probably under a misapprehension, told one of Sir Lindsay Parkinson's directors that they had a licence to do this work. If the matter had come to the notice of the company's secretary in the ordinary way he would have interfered and stopped the order.

The magistrate, Sir Wilfred Bennett, said he was not satisfied that there had been anything more than a reprehensible degree of carelessness, which was liable to happen when business heads or their managers got together without consulting their more experienced staff. Rediffusion's representative was trusted when he said they had a licence to do this work, and his explanation was that he thought his company's maintenance licence entitled them to have the work done. Although there was no excuse in law, there was a certain amount of explanation as to how the offence came to be committed.

IN PARLIAMENT

Rural Housing in Scotland.

MR. J. J. ROBERTSON asked the Secretary of State for Scotland if he would now make a statement on his plans for dealing with the housing problem in the rural areas in Scotland.

MR. BUCHANAN said he had completed arrangements for the provision of 3,000 Cruden houses for erection in rural areas and small burghs in Scotland. This was a four-apartment house of the double storey cottage type constructed with a steel frame and concrete slabs. He would shortly communicate full details of the house to the local authorities concerned, at the same time offering them an allocation of the houses for their respective districts. It was intended that the houses would be built in rural areas in quite small groups for occupation mainly by the agricultural population and in numbers up to 20 or 24 in the burghal areas. The programme contemplated that the 3,000 which it covered would be completed by the end of August, 1947.

Westminster Hall.

MR. SHEPHARD asked the Minister of Works when it was anticipated that the scaffolding in Westminster Hall would be removed.

MR. TOMLINSON said that the scaffolding in Westminster Hall was erected after bomb-damage to the roof, to enable temporary repairs to be carried out, and it would be retained for the permanent repairs. It was hoped to start the permanent repairs this year, and the work would take 12-18 months to complete.

Prefabricated Houses.

MR. BOSSOM asked the Minister of Health how many orders for the manufacture of prefabricated permanent houses of each of the approved types had now been placed; and how many had up to the present been manufactured and erected.

MR. KEY, the Parliamentary Secretary to the Ministry of Health, said that arrangements had been made directly by the Government for the production of permanent prefabricated houses only in respect of Howard houses, B.I.S.F. houses and Airey Rural houses. For all other types of permanent prefabricated houses local authorities obtained tenders in the same manner as they obtained tenders for traditional houses. 1,400 Howard houses and 18,906 B.I.S.F. houses had been allocated to local authorities. Figures of the demand for Airey Rural houses were not yet available. Tenders had been approved for 2,566 Easiform houses, for 1,098 Orlit houses and for 2,374 permanent prefabricated houses of various other types. Up to April 30, 5 Howard, 54 Easiform and 2 Orlit houses had been completed.

Houses and Flats.

MR. MARPLES asked the Minister of Town and Country Planning if it was the Government's policy, under the Town and Country Planning Acts, to grant permission for the conversion of large houses into flats, accompanied by a provision that the flats might only be used for a limited period of time.

MR. SILKIN said that in the present housing emergency, it was the Government's policy to encourage in appropriate cases the conversion of houses into flats. Local planning authorities might, however, limit the period of time during which the flats might be used, in order to prevent prejudice to their longer-term planning requirements. But in determining the period of time, they should take into account the capital expenditure incurred by the developer.

LORD WILLOUGHBY DE ERESBY asked the Minister of Works what percentage of baths manufactured in this country went

to the export market; and what percentage to the home market.

MR. TOMLINSON said that approximately 3 per cent. of the baths manufactured in this country were exported. The remainder were available for distribution in the home market.

REBUILDING DESTROYED HOUSES

EMPLOYMENT OF SMALL CONTRACTORS

THE promotion of a publicity campaign to encourage owners to rebuild houses destroyed by the war, and the use of small contractors to this end, are among the suggestions made by the Ministry in a circular (109/46) recently issued to all local authorities and county councils.

The circular states :—

The Ministry of Health Circulars 118/45, 125/45 and 74/46 contain the Government's announcement that some 40,000 destroyed houses entitled to payments of cost of works, and which fall within the rateable value limits of the Rent Restriction Acts (£100 in London and £75 elsewhere) should be included in the first two years' housing programme of local authorities.

The great majority of these houses belong to private owners, and it was envisaged that they would be ready to accept responsibility for arranging for the rebuilding of their houses, if necessary with the help of a professional adviser (in particular in regard to the materials which could be specified, and the adjustment of the contract sum to the amount payable by the Commission under the War Damage Act).

Although the War Damage Commission has communicated two or three times with each private owner, most of them as yet have not made arrangements for the rebuilding of their houses. This experience supports representations which have been made to the Ministry and the Commission that many owner-occupiers have had insufficient experience to undertake with confidence the initial steps under the Commission's scheme of engaging a professional adviser, of employing a builder and arranging for a specification of works.

The rebuilding of these houses is an essential part of the local authority's immediate programme. In order to stimulate progress, local authorities should, therefore, in consultation with the regional managers of the War Damage Commission, consider promoting a suitable publicity campaign designed to encourage the owners of destroyed houses in their own area to rebuild. Such publicity should indicate : (1) that the local authority will issue licences and priority certificates for labour and materials for the rebuilding of destroyed houses entitled to payment of "cost of works"; (2) that these houses are entitled to the same priority for labour and materials as new building by the local authority; (3) that they will be glad to receive applications in respect of local rebuilding schemes put forward by groups of neighbouring owners; (4) they will do all in their power to help owners to get over difficulties—*viz.*, they will help them to find professional advisers and contractors. Above all, the authority should announce that the time has come for owners of such war-destroyed houses to put in hand the preliminary work necessary before rebuilding can begin.

If local authorities find that owners are still reluctant to undertake this work, they will doubtless wish to consider again the possibility envisaged in paragraph 7 of Circular 156/45 to undertake the work themselves on behalf of the owners. The rebuilding of these houses might well provide an opportunity to employ in the housing programme some of the smaller contractors whose resources do not enable them to tender for a local authority housing scheme.

Under the War Damage Act the owner is entitled to have reinstatement of his house in its previous form. The prevailing scarcity of materials may make that impossible where the house is to be restored now. In many cases the rebuilding with materials now available will, however, give a better house than that which existed before.

These are points to which a local authority might properly refer in discussion with owners.

MATERIALS RATIONING

MORE MODIFICATIONS WANTED

MR. E. W. GARRETT, President of the L.M.B.A., was the chief guest of Central No. 5 Area at its monthly luncheon in the Zeeta Berkeley Rooms, Putney, on May 28. Mr. H. F. Webb, chairman of the Area, presided. Among the guests were Mr. G. W. Buchanan, last year's President of the National Federation, and a number of representatives of the Local Associations from the districts covered by the Area.

Speaking of the difficulties which at present beset the building industry, Mr. Garrett said that for the moment at least they were chiefly concerned with the new materials rationing scheme. He deplored the fact that the building industry had not been consulted about its probable effects, before it had been launched.

The London Master Builders' Association and the National Federation had already, by consultation with the Minister of Works, done a very great deal to improve the scheme, and if some further suggestions they were making were accepted, it might shortly prove even less onerous to the builder. They were pressing for still greater elasticity in its workings.

NEWS ITEMS

New Water Regulations.

The Minister of Health, in pursuance of the powers conferred on him by Section 14 of the Water Act, 1945, has issued a list of regulations—Underground Water (Controlled Areas) Regulations, 1946—which came into operation on June 1, 1946. Copies may be obtained from H.M. Stationery Office, price 1d.

Conversion and Reconditioning of Houses.

A report of a one-day conference, held on the subject of "House Conversion," has recently been published by the Housing Centre, 13, Suffolk-street, S.W.1. The report contains articles on the practical problems of house conversion and the conversion of town and country houses. The price is 1s. 6d.

Timber Data.

The Timber Development Association has recently published twenty new "Timber Information Leaflets," designed to provide architects, engineers, surveyors, builders, etc., with data on various aspects of timber. Copies of the leaflets can be obtained free of charge from the Timber Development Association headquarters, 75, Cannon-street, E.C.4.

Colour and Lighting in Industry.

The subject of colour and lighting in industry, though not entirely new, has received wide attention during the war years, and to-day many industrialists are considering the use of colour technique in the building and reconstruction of factories.

At a meeting of experts recently held at the offices of the Industrial Welfare Society (Lord Marley in the chair), it was agreed to form a Co-ordinating Committee on Colour and Lighting in Industry under the auspices of the British Colour Council. The names of members will be announced in the near future.

A "One-Pipe" Sanitation System.

A "one-pipe" sanitation system has been adopted for the demonstration houses erected at Llanishen, Cardiff, in connection with the House Building Industries Standing Joint Committee Competition, and opened by the Lord Mayor of Cardiff on Tuesday, June 4. This system is constructed of copper, and all the pipes have smooth, corrosion-free bores and relatively small outside diameters. The joints can, without difficulty, be made permanently gas-tight, which is an important advantage from the health point of view. The hot and cold water services in the above houses are also of copper, including pipes and hot cylinder.

Building on Commons and Open Spaces.

The use of commons or public open spaces for housing, even as sites for the erection of temporary houses, is strongly disparaged in the 1945 annual report of the Commons, Open Spaces and Footpaths Preservation Society, 71, Eccleston-square, London, S.W.1.

The report states: "It is directly contrary to principles of good planning and to the need of urban populations for more, rather than fewer, open spaces, that commons or public open spaces which have hitherto been protected by that fact from being submerged in the tide of development should be used, even temporarily, for housing; yet this has actually happened in a considerable number of instances."

The report mentions the Ministry of Health's decision to erect temporary houses on Wanstead Flats, which is part of Epping Forest, and comments: "It is often following the line of least resistance to use an existing open space for this purpose rather than a war-damaged area."

RATES OF WAGES IN THE BUILDING TRADE

AS FROM BEGINNING OF PAY WEEK NEXT FOLLOWING 1st JANUARY, 1946.

(Every endeavour is made to ensure accuracy, but we cannot be responsible for errors)

	Crafts-men.	Lab-ourers.
Aberavon	2/6	2/0
Aberdare	2/6	2/0
Abergavenny	2/6	2/0
Abingdon	2/4½	1/11
Accrington	2/6	2/0
Aldeburgh	2/4	1/10½
Aldershot District	2/4½	1/11
Alfreton U.D.	2/6	2/0
Alnwick	2/5½	1/11½
Altrincham	2/6	2/0
Amble	2/5½	1/11½
Amersham	2/4½	1/11
Ammanford	2/6	2/0
Andover	2/4	1/10½
Ardingly	2/4	1/10½
Arundel	2/4	1/10½
Ascot	2/4	1/10½
Ashby-de-la-Zouch U.D.	2/6	2/0
Ashford (Kent)	2/4	1/10½
Ashford (Middlesex)	2/6	2/0
Ashington	2/5½	1/11½
Ashtead	2/6	2/0
Ashton-under-Lyne	2/6	2/0
Aylesbury	2/4	1/10½
Aylsham	2/4	1/10½
Bagshot	2/4	1/10½
Banbury	2/4	1/10½
Barnsley	2/6	2/0
Barnstaple	2/4	1/10½
Barrow-in-Furness	2/6	2/0
Barry	2/6	2/0
Basingstoke	2/4	1/10½
Bath	2/5½	1/11½
Batley	2/6	2/0
Beaconsfield	2/4½	1/11
Beccles	2/4	1/10½
Bedford	2/5½	1/11½
Berkhamstead	2/4	1/10½
Berwick District	2/5½	1/11½
Beverley	2/6	2/0
Bexhill-on-Sea	2/4½	1/11
Bideford	2/4	1/10½
Biggleswade	2/4	1/10½
Billericay	2/5	1/11½
Birchington	2/4	1/10½
Birkenhead	2/7½	2/1½
Birmingham C.B.	†2/6	†2/0
Bishop Auckland	2/6	2/0
Bishop's Stortford	2/5	1/11½
Blackburn	2/6	2/0
Blackpool	2/6	2/0
Blyth	2/6	2/0
Bognor Regis	2/4	1/10½
Bolton	2/6	2/0
Bournemouth District	2/5	1/11½
Bracknell	2/4	1/10½
Bradford	2/6	2/0
Bradford-on-Avon	2/4	1/10½
Braintree	2/4	1/10½
Brentwood	2/5½	1/11½
Bridgwater	2/4½	1/11
Bridlington	2/5½	1/11½
Brighouse	2/6	2/0
Brighton	2/5	1/11½
Bristol	2/6	2/0
Broadstairs	2/4	1/10½
Bromsgrove U.D.	2/5½	1/11½
Buckley	2/6	2/0
Bungay	2/4	1/10½
Burnham-on-Crouch	2/4	1/10½
Burnley	2/6	2/0
Burslem	2/6	2/0
Burton-on-Trent C.B.	2/6	2/0
Bury	2/6	2/0
Bury St. Edmunds	2/4	1/10½
Buxton	2/5½	1/11½
Byfleet	2/4½	1/11
Cambridge	2/6	2/0
Canterbury	2/4	1/10½
Cardiff	2/6	2/0
Carlisle	2/6	2/0
Carnforth	2/6	2/0
Castleford	2/6	2/0
Caterham	2/6	2/0
Chard	2/4	1/10½
Chatham & District	2/5	1/11½
Chelmsford	2/5½	1/11½
Cheltenham	2/5	1/11½
Chepstow	2/5½	1/11½
Chertsey	2/5	1/11½
Chester	2/6	2/0
Chesterfield M.B.	2/6	2/0
Chichester	2/4	1/10½
Chorley	2/6	2/0
Cirencester	2/4	1/10½
Clacton	2/4	1/10½
Cleveleys	2/6	2/0
Clitheroe	2/6	2/0
Cobham (Surrey)	2/5	1/11½
Colchester	2/5½	1/11½
Colwyn Bay	2/5	1/11½
Congleton	2/5½	1/11½
Coventry C.B.	2/6	2/0
Cranbrook	2/4	1/10½
Cranleigh	2/4	1/10½
Crawley (Sussex)	2/4	1/10½
Crewe	2/5½	1/11½
Cromer	2/4	1/10½
Crowborough	2/4	1/10½
Cuckfield	2/4	1/10½
Darlington District	2/6	2/0
Darwen	2/6	2/0
Daventry M.B.	2/4½	1/11
Deal	2/4	1/10½
Denbigh Town	2/5	1/11½
Derby C.B.	2/6	2/0
Devizes	2/4	1/10½
Dewsbury	2/6	2/0
Didcot	2/4	1/10½
Diss	2/4	1/10½
Doncaster	2/6	2/0
Dorchester	2/4	1/10½
Dorking	2/4½	1/11
Dover	2/4	1/10½
Dovercourt	2/4	1/10½
Driffield	2/4½	1/11
Droitwich M.B.	2/5½	1/11½
Dudley M.B.	2/6	2/0
Dunstable	2/4½	1/11
Durham City	2/6	2/0
Eastbourne	2/5	1/11½
E. Glam. (Mon. Val.)	2/6	2/0
East Grinstead District	2/4	1/10½
Edenbridge	2/4	1/10½
Ely	2/4	1/10½
Epping	2/6	2/0
Exeter	2/5½	1/11½
Exmouth	2/4½	1/11
Fakenham	2/4	1/10½
Falmouth	2/4½	1/11
Fareham	2/5	1/11½
Faversham	2/4	1/10½
Felixstowe	2/5	1/11½
Filey	2/4½	1/11
Fleetwood	2/6	2/0
Flint	2/6	2/0
Folkestone	2/4	1/10½
Frinton	2/4	1/10½
Frome	2/5	1/11½
Gainsborough U.D.	2/5	1/11½
Gateshead	2/6	2/0
Gillingham (Kent)	2/5	1/11½
Glossop	2/6	2/0
Gloucester	2/5½	1/11½
Godalming	2/4	1/10½
Goole	2/6	2/0
Gosport	2/5½	1/11½
Grantham M.B.	2/5	1/11½
Gravesend	2/5½	1/11½
Great Yarmouth	2/4	1/10½
Grimsby	2/6	2/0
Guildford District	2/4	1/10½
Guilsborough	2/4½	1/11
Halifax	2/6	2/0
Hanley	2/6	2/0
Harpenden	2/5	1/11½
Harrogate	2/6	2/0
Hartlepools	2/6	2/0
Harwich	2/4	1/10½
Haslemere	2/4	1/10½
Hastings	2/4	1/10½
Hatfield	2/5½	1/11½
Haywards Heath	2/4	1/10½
Hednesford	2/5½	1/11½
Hemel Hempstead	2/5	1/11½
Henley-on-Thames	2/4	1/10½
Hereford	2/4	1/10½
Herne Bay	2/4	1/10½
Hertford	2/5½	1/11½
Heysham	2/6	2/0
Hitchin	2/5	1/11½
Hoddesdon	2/5½	1/11½
Holt (Norfolk)	2/4	1/10½
Horley	2/4	1/10½
Horsham	2/4	1/10½
Horwich	2/6	2/0
Huddersfield	2/6	2/0
Hull	2/6	2/0
Hunstanton	2/4	1/10½
Huntingdon	2/4	1/10½
Ilfracombe	2/4	1/10½
Ingatestone	2/4½	1/11
Ipswich	2/5½	1/11½
Isle of Thanet	2/4	1/10½
Isle of Wight	2/4	1/10½
Keighley	2/6	2/0
Kenilworth U.D.	2/6	2/0
Kettering M.B.	2/6	2/0
Kidderminster M.B.	2/5½	1/11½
King's Lynn	2/4	1/10½
Kirkham	2/6	2/0
Knowle	2/5½	1/11½
Lancaster	2/6	2/0
Leamington M.B.	2/6	2/0
Leatherhead	2/5	1/11½
Leeds	2/6	2/0
Leicester C.B.	2/6	2/0
Leighton Buzzard	2/4½	1/11
Letchworth	2/5	1/11½
Lewes	2/4	1/10½
Lichfield M.B.	2/5	1/11½
Lincoln C.B.	2/6	2/0
Littlehampton	2/4	1/10½
Liverpool	2/7½	2/1½
Llandudno	2/5	1/11½
Llanelly	2/6	2/0
London—		
12m. radius	2/7½	2/1½
12-15 m. radius	2/7	2/1
Long Eaton	2/6	2/0
Longton	2/6	2/0
Loughborough M.B.	2/6	2/0
Louth M.B.	2/4½	1/11
Lowestoft	2/4	1/10½
Luton	2/5½	1/11½
Macclesfield	2/5½	1/11½
Maidenhead	2/5	1/11½
Maidstone	2/4½	1/11
Malvern U.D.	2/4½	1/11
Manchester	2/6	2/0
Manningtree	2/4	1/10½
Mansfield M.B.	2/6	2/0
March	2/4	1/10½
Margate	2/4	1/10½
Market Harborough	2/5	1/11½
Matlock U.D.	2/4½	1/11
Melton Constable	2/4	1/10½
Melton Mowbray U.D.	2/5	1/11½
Merthyr	2/6	2/0
Middlesbrough	2/6	2/0
Middleton	2/6	2/0
Middlewich	2/5½	1/11½
Milford Haven	2/4½	1/11
Morecambe	2/6	2/0
Morley	2/6	2/0
Mundesley	2/4	1/10½
Nantwich	2/5½	1/11½
Nelson	2/6	2/0
Newark-on-Trent	2/5½	1/11½
Newbury	2/4	1/10½
Newcastle-on-Tyne	2/6	2/0
Newcastle-u.-Lyme	2/6	2/0
New Forest District	2/4	1/10½
Newmarket	2/4	1/10½
Newport, Mon.	2/6	2/0
Newport Pagnell	2/4	1/10½
Northampton C.B.	2/6	2/0
Norwich	2/6	2/0
Nottingham C.B.	2/6	2/0
Nuneaton M.B.	2/6	2/0
Oakham	2/4½	1/11
Oldham	2/6	2/0
Ormskirk	2/6	2/0
Oxford	2/5½	1/11½
Oxted	2/4½	1/11
Paignton	2/5½	1/11½
Peterborough (Borough)	2/5½	1/11½
Plymouth	2/6	2/0
Pontefract	2/6	2/0
Pontypridd District	2/6	2/0
Port Talbot	2/6	2/0
Portsmouth	2/5½	1/11½
Preston	2/6	2/0
Pulborough	2/4	1/10½
Ramsgate	2/4	1/10½
Reading	2/5½	1/11½
Redditch U.D.	2/5½	1/11½
Redhill	2/4½	1/11
Ripon	2/4½	1/11
Rochdale	2/6	2/0
Rochester	2/5	1/11½
Rugby M.B.	2/6	2/0
St. Albans	2/5½	1/11½
St. Helens	2/6	2/0
St. Neots	2/4	1/10½
Saffron Walden	2/4	1/10½
Salisbury City	2/4	1/10½
Salisbury Plain	2/4	1/10½
Sawbridgeworth	2/4½	1/11
Saxmundham	2/4	1/10½
Scarborough	2/5½	1/11½
Scunthorpe	2/6	2/0
Selby	2/6	2/0
Sevenoaks	2/4½	1/11
Sheerness	2/4	1/10½
Sheffield	2/6	2/0
Shipley	2/6	2/0
Shoeburyness	2/5½	1/11½
Shorcham	2/5	1/11½
Shrewsbury M.B.	2/5½	1/11½
Sittingbourne	2/4	1/10½
Skegness U.D.	2/5	1/11½
Sleaford U.D.	2/4½	1/11
Slough	2/5	1/11½
Smethwick C.B.	† 2/6	† 2/0
Southampton	2/5½	1/11½
Southend-on-Sea District	2/5½	1/11½
Southport	2/6	2/0
South Shields	2/6	2/0
Spalding U.D.	2/4	1/10½
Stafford M.B.	2/5½	1/11½
Staines	2/5	1/11½
Stamford	2/5	1/11½
Stevenage	2/5	1/11½
Stockport	2/6	2/0
Stockton-on-Tees	2/6	2/0
Stoke-on-Trent C.B.	2/6	2/0
Stourbridge M.B.	2/6	2/0
Stourport U.D.	2/5½	1/11½
Stowmarket	2/4	1/10½
Stratford-on-Avon M.B.	2/5	1/11½
Stroud	2/5	1/11½
Sunderland District	2/6	2/0
Sutton Coldfield M.B.	2/6	2/0
Swaffham	2/4	1/10½
Swanage	2/4	1/10½
Swansea	2/6	2/0
Swindon	2/4½	1/11
Tamworth M.B.	2/5½	1/11½
Taunton	2/4½	1/11
Tenterden	2/4	1/10½
Thames Haven	2/6	2/0
Thetford	2/4	1/10½
Thorpe Bay	2/5½	1/11½
Todmorden	2/6	2/0
Tonbridge	2/4½	1/11
Torquay	2/5½	1/11½
Totnes	2/4	1/10½
Trowbridge	2/4	1/10½
Truro	2/4	1/10½
Tunbridge Wells	2/4½	1/11
Uppingham (Salop)	2/5½	1/11½
Uttoxeter U.D.	2/4½	1/11
Wakefield	2/6	2/0
Walsall C.B.	2/6	2/0
Walsden	2/6	2/0
Walton-on-Naze	2/4	1/10½
Ware	2/5½	1/11½
Warminster	2/4	1/10½
Warrington	2/6	2/0
Warwick M.B.	2/6	2/0
Wellington R.D.	2/5½	1/11½
Welwyn	2/5	1/11½
Welwyn Gar. City	2/6	2/0
Wells (Norfolk)	2/4	1/10½
West Bromwich C.B.	2/6	2/0
Westcliff-on-Sea	2/5½	1/11½
Weston-Super-Mare	2/5	1/11½
Weybridge	2/5	1/11½
Weymouth	2/4	1/10½
Whitby	2/5	1/11½
Whitstable & District	2/4	1/10½
Widnes	2/6	2/0
Wigan	2/6	2/0
Wigton	2/4½	1/11
Willington	2/6	2/0
Wilmslow	2/6	2/0
Winchester	2/4½	1/11
Windermere	2/4½	1/11
Windsor	2/5	1/11½
Wisbech	2/4	1/10½
Witham	2/4	1/10½
Woking (District)	2/4½	1/11
Wokingham	2/4	1/10½
Wolverhampton C.B.	2/6	2/0
Woodbridge	2/4	1/10½
Worcester C.B.	2/5½	1/11½
Workington	2/4½	1/11
Worksop	2/5½	1/11½
Worthing	2/4	1/10½
Wrexham	2/5½	1/11½
Wroxham	2/4	1/10½
Wycombe	2/5	1/11½
Wymondham	2/4	1/10½
Yeovil	2/4½	1/11
York	2/6	2/0

† Plus 2d. per working day.

NOTE.—Carpenters, Joiners and Plumbers in all Towns and Districts receive 2d. per day Tool Allowances.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged on craft processes is 1/7½ per hour. Women introduced to carry out work other than craft processes, 1/4 per hour.

For Building Trade Wages in Scotland, see page 569.

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will of course be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery.

BRICKS, &c.

	£ s. d.
First Hard Stocks	6 10 0
Second Hard Stocks	6 0 0
Mild Stocks	5 5 0

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

	Certain London L.M.S. Stations	Sites in PBMA Area, N. of Thames
2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	per 1,000 s. d.	per 1,000 s. d.
Pressed	69 0	84 0
Keyed	71 0	86 0
Single Bullnose	89 0	104 0
Rustics	89 0	104 0
Whites	89 0	104 0
	£ s. d.	£ s. d.
Best blue Pressed Staffs. (London Stns.)	14 11 0	
Do. Bullnose (London Stns.)	15 1 9	
Blue Wire Cuts (London Stns.)	13 6 6	

Best Stourbridge Fire Brick (London Stns.) :—

	£ s. d.	£ s. d.
2½ in.	13 3 6	3 in. 15 16 6

GLAZED BRICKS (London Stns.). Add 33⅓% to Prices.

Best White Ivory and Salt Glazed		D'ble Str'tch'rs D'ble Headers	38 10 0 35 10 0
Stretcher	30 0 0	One side&two ends	39 10 0
Headers	29 10 0	Two sides & one end	40 10 0
Quoins, Bullnose and 4½ in. Flats	36 10 0	Splays and Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.
12 miles radius Charing Cross.

HOLLOW CLAY PARTITION BLOCKS.
London Brick Company.

Minimum Lorry Loads. Keyed.	s. d.
2" per yd. sup. 120 yds.	2 9
2½ " " 110 "	3 0
3" " " 100 "	3 7
4" " " 84 "	4 1

Half blocks *add* 2s. per yard super to above prices.

CLINKER CONCRETE.

2" per yd. sup.	3 2	3" per yd. sup.	4 2
2½ " "	3 8	4" "	5 3

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 9
Size 12 x 9 x 2½ " "	3 0
Size 12 x 9 x 3" " "	3 7
Size 12 x 9 x 4" " "	4 1

HEMPSTEAD—KEYED TWO SIDES.

12 x 9 x 2"	2 9	12 x 9 x 3"	3 7
12 x 9 x 2½"	3 0	12 x 9 x 4"	4 1

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 3½
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R. per ft. cube	4 7
Do. do. delivered on road waggons as above stations per ft. cub.	4 7
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ¼d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire.	s. d.
Random blocks from 10ft. and over p.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super	5 6
6 in. rubbed two sides, ditto "	6 3
3 in. sawn two sides slabs (random sizes) "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) "	1 8½
1½ in. to 2 in. ditto "	1 4½
HARD YORK— Delivered at any Goods Station, London.	
Scrappled random blocks . per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super	5 7½
6 in. rubbed two sides, ditto "	6 9
4 in. sawn two sides slabs (random sizes) "	3 5
3 in. ditto ditto "	2 8
2 in. self-faced random flags per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube : Plain, 10s. ; Moulded, 12s. 6d.
Small section cills and copings, 15s.

SAND.

Thames Ballast	11s. 6d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	10s. 0d. " "	
Pit Sand	12s. 0d. " "	
Washed Sand	14s. 9d. " "	
½ in shingle	12s. 0d. " "	
¾ in. Broken Brick	16s. 0d. " "	
Pan Breeze	10s. 0d. " "	

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification, delivered London area	3 0 0
6 ton loads and upwards site per ton	2 17 0
1 to 6 tons site	3 0 0
In paper bags or non-returnable jute sacks, 7s. net per ton of cement extra.	
" Ferrocrete " Rapid Hardening Cement 6 ton loads and upwards site	3 3 0
1 to 6 tons site	3 6 0
In paper bags 7s. per ton extra.	
" Aquacrete " Water Repellent cement, 31/6 per ton on ordinary " Blue Circle " prices. In paper bags 7s. per ton extra.	
Rapid Hardening " Colorcrete " in 6-ton lots	4 18 6
In paper bags 7s. per ton extra.	
" Colorcrete " not rapid hardening, according to colour. In 4 ton lots from 166/6 to 390/6 per ton according to colour (including paper bags).	
" Snowcrete " White Portland Cement (in free paper bags)	11 6 6
Under one ton per cwt.	0 13 2
" 417 " Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 ton lots and upwards	3 18 6
In paper bags 7s. per ton extra.	
Super Cement (Waterproof), bags extra	4 8 6
Cullamix Tyrolean Finish £7 9 0 to	9 2 6
(1 ton lots and upwards, including cost of Paper Bags.	
Snowcem Cement Paint (in free airtight containers) per cwt.	2 16 0

	£ s. d.		£ s. d.
Roman Cement	8 10 0	Keene's Cement, White	7 8 6
Parian Cement	7 0 0	" " Pink	7 2 6

Cementone Colours for cement according to tints, per cwt. from £3 5s. 0d.

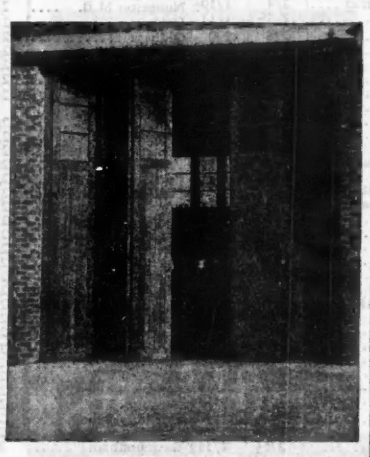
SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12	55 0 0	18 by 10	28 15 0
22 by 12	44 7 6	18 by 9	26 18 0
22 by 11	40 5 6	16 by 10	25 13 6
20 by 12	39 2 6	16 by 8	19 17 6
20 by 10	35 17 6		

NOTE : Breakage in transit, purchasers' responsibility.

KING SLIDING DOOR GEAR



Write for fully illustrated booklet showing all types of King Sliding Door Gear

GEO. W. KING LTD HITCHIN · HERTS ·
HITCHIN 960 (10 lines) | MANCHESTER CENTRAL 3947 | NEWCASTLE 24198 | GLASGOW DOUGLAS 2791

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 5 6	Sirapite, Coarse	4 11 6
" White	4 14 6	" Finish	4 19 6
Pioneer	5 6 6		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	3 7 6	Grey Stone Lime Chalk Lime	3 7 0 3 7 0
Granite Chippings	2 8 0	Hair per cwt	3 10 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.
Stourbridge Fireclay in paper bags, £3 4s. 0d., 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	8 2 9
Ditto hand-made ditto	9 0 6
Ornamental ditto	9 10 0
Hip and valley tiles—Hand-made (per dozen)	17 6
—Machine-made	16 6

NOTE : Breakage in transit, purchasers' responsibility.

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	Foot cube. s. d.	£ s. d.
Dry English Wainscot Billets	16 0 to	0 18 0
Dry Slavonian Billet Wainscot	17 0 to	1 0 0
Dry Cuba Mahogany logs	21 0 to	1 4 0
Square-edged Honduras Mahogany		0 16 6
Log Cut Honduras Mahogany		0 17 6
American Figured Oak		0 13 0
American Plain Oak		0 12 6
Jap Figured Oak		0 13 0
Jap Plain Oak		0 12 6
Teak		0 15 6
American Whitewood		0 12 6
African Whitewood		0 8 0
African Mahogany		0 11 0
Australian Walnut		0 19 0
Australian Silky Oak		0 12 6
Best Scotch glue per cwt.		5 0 0
Liquid glue per gallon		1 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes		
2in. by 3in. by 4in. by 11in.	47 0 0	58 0 0

PLANED BOARDS.
PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. / 1 in. by 9 in.	71 0 0
	Per square. s. d.
1 in. plain edge flooring	56 3
1½ in. ditto	70 6
1 in. tongued and grooved	56 3
1½ in. ditto	70 6

MATCHING.

	per square. s. d.
¾ in.	40 3
⅞ in.	45 0
1 in.	59 0

PLUMBERS' BRASS WORK.

Delivered in London.
M.O.H.

S.D. BIBCOCKS CRUTCH HEAD, FOR IRON.
½ in. 33/- ¾ in. 51/- per doz.
TOILET BIB COCKS FOR IRON.
½ in. 60/- ¾ in. 72/- per doz.
S.D. STOP COCKS FOR IRON.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
33/-	48/-	86/-	209/-	281/-	456/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
45/-	77/6	123/-	240/-	372/-	624/- per doz.

DOUBLE NUT BOILER SCREWS.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
5/6	6/8	11/-	24/-	36/-	56/- per doz.

HEAVY CROYDON BALL VALVES.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.
72/-	115/-	144/-	288/-	384/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
14/-	18/6	25/9	45/3	64/9	71/6 per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/9	13/6	25/-	37/-	46/- per doz.

LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1¼×6 lb.	1½×6 lb.	2×7 lb.	3×7 lb.
Lead P.	26/-	34/-	55/-	92/- per doz.
Lead S.	34/-	41/-	67/-	115/- per doz.

SOLDER.—Plumbers', 1/7, Tinmen's, 2/1. Blow pipe 2/6 per lb.
Copper Tubes ....1/2½ per lb. Basis.
Brass Tubes ....1/3½ per lb. Basis.
Basis prices are subject to extras.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(contd.)

See Note at top of preceding page.

METALS.

Joists, Girders, &c., to London Station, per ton—

	£	s.	d.
R. S. Joists, cut and fitted	£25	0	0
Plain Compound Girders	27	10	0
Stanchions	30	0	0
In Roof Work	38	10	0

Note.—These prices are for standard pieces and not special pieces of an awkward nature.

Mild Steel Rounds.—To London Stations, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	24	5	0	¼ in.	22	15	0
⅜ in.	23	15	0	⅜ in. to 2¾ in.	22	5	0
½ in.	23	5	0				

Wrought Tubes and Fittings.

Deliveries from works.

Deliveries from London stock further 2½% gross.

	Tubes. ½"/6"	Tubulars, and 10/17 Flanges. ½"/6"	19/24"	½"/2"	2½"/6"
	%	%	%	%	%
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	30	—	30	30	30
Galv. heavyweight	20	20	20	20	20

Tubes and tubulars sizes ½" /⅛" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. Half-Round Gutters.—London Works, per yd. in 6 ft. lengths. Prices ex Stop ends.

	Gutters.	Nozzles.	
3 in.	2/1	1/10	6d.
3½ in.	2/4	2/1	6d.
4 in.	2/4	2/2	10d.
4½ in.	2/5	2/6	11d.
5 in.	2/11	2/10	1/2

O.G. Gutters.

3 in.	2/8	2/5	7d.
3½ in.	3/–	2/5	10d.
4 in.	3/–	2/6	11d.
4½ in.	3/2	2/11	1/2
5 in.	3/10	3/5	1/3

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Angles.	Branches.
2 in.	3/3	2/2	3/4
2½ in.	3/4	2/6	3/10
3 in.	4/2	3/3	4/8
3½ in.	4/11	3/9	5/6
4 in.	5/7	4/6	6/7

NET PRICES.

Tonnage allowance—4-ton lots, 5 per cent. 2-ton lots, 2½ per cent.

L.C.C. Coated Soil Pipes.—London Prices, ex stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	4/11	3/10	4/8
2½ in.	5/5	4/3	5/9
3 in.	5/11	4/7	7/–
3½ in.	6/1	5/8	8/–
4 in.	6/–	6/5	9/6

L.C.C. Coated Drain Pipe.

cwt. qr. lbs. in 9 fts.	per yard.	Bends.	Branches.
4 in. 1 1 17	9/7	9/–	16/–
6 in. 2 0 1	14/3	18/10	32/7

Per ton basis in London.

	£	s.	d.
Iron.—Staffordshire Crown, Merchant quality	24	10	0
Iron.—Staffordshire Marked Bars	25	5	0
Mild Steel Bars	20	10	0
Mild Steel Hoops	22	7	6

Ex Merchant's Stock, per ton (two-ton lots).

	£	s.	d.
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	26	5	0
24 gauge	27	5	0
26 gauge	28	5	0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20 gauge	29	12	6
24 gauge	31	7	6
26 gauge	33	12	6
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	30	12	6
24 gauge	32	7	6
26 gauge	34	12	6

Per ton.

	£	s.	d.
Cut Nails, 3 in. and up	29	10	0

All Net.

Metal Windows.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

PAINTS, &c.

		£	s.	d.
Raw Linseed Oil (5 galls.)	per gallon	0	8	1
Boiled Linseed Oil (5 galls.)	"	0	8	5
Genuine White Lead (free kegs)	cwt.	4	6	6
Genuine White Lead Paint (tins free)	gall.	1	16	0
Genuine Red Lead	cwt.	3	15	0
Linseed Oil Putty (free packages)	cwt.	1	9	3
Size, XD quality	fkn.	0	4	9

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from January 1, 1946. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B	B1
Craftsmen	2/6	2/5½	2/5	2/4½	2/4	2/3½
Labourers	2/–	1/11½	1/11	1/10½	1/10	1/9½

Aberdeen	A	Dumfriesshire	A2	Inverness	*	Perthshire	A2
Ayrshire	A	Dundee	A	Inverurie	A1	Peterhead	A1
Banff	B	Dunoon	A	Kincardinshire	A2	Renfrewshire	A
Berwickshire	A2	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A2
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A2
Doune	A	Forfarshire	A2	Moray and Nairn	B	Stewartry	A2
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A2	Stornoway	A2
Dumfries	A1	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

* This town has its own rates.

The Scottish N.J.C. award on which this is based does not provide for any variation to current rates of Apprentices' wages, which will be considered by the General Council of the Apprenticeship Scheme. The information given in this table is copyright. Rates of wages in England and Wales are given on page 567.

VARNISHES, &c.

		Per gallon. £	s.	d.
Oak Varnish	Outside	0	16	0
Fine do.	"	0	18	0
Fine Copal	"	1	0	0
Pale Copal	"	1	2	0
Pale Copal Carriage	"	1	6	0
Best do. do.	"	1	14	0
Floor Varnish	Inside	1	0	0
Fine Pale Paper	"	1	0	0
Fine Copal Cabinet	"	1	4	0
Fine Copal Flatting	"	1	2	0
Hard Drying Oak	"	1	0	0
Fine Hard Drying Oak	"	1	1	6
Fine Copal Varnish	"	1	2	6
Pale do.	"	1	14	0
Best do.	"	1	4	6
Best Japan Gold Size	"	1	14	6
Best Black Japan		0	12	0
Oak and Mahogany Stain (water)		0	14	0
Brunswick Black		0	9	6
Berlin Black		0	16	0
Knotting (patent)		0	17	0
French and Brush Polish		0	14	0
Liquid Dryers in Terebene		0	11	0

LEAD, &c.

(Delivered in London 5 cwts.)	Per ton. £	s.	d.
Lead.—Sheet, English, 3½ lb. and up	58	0	0
Pipe in coils	59	10	0
Soil pipe	62	10	0
Compo pipe	65	0	0

Note.—Country delivery, 10/– per ton extra, lots under 3 cwt. 4/– per cwt. extra and over 3 cwt. and under 5 cwt., 3/– per cwt. extra. Extra if cut to size. Old lead, ex London area, per ton £30 0 0. Buyers pay carriage.

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LEADED LIGHTS and
Electro-Copper
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THE SCOTTISH BUILDER

NEW BUILDINGS

Dumbartonshire.—Alterations and additions for Meechans, Ltd., Scotstoun, for which the architects are MacNair & Elder, 272, St. Vincent-st., Glasgow.

Glasgow.—Alterations and additions for the Glasgow and West of Scotland Foot Hospital, for which the architect is Alexander D. Hislop, 124, St. Vincent-st., Glasgow.

Glasgow.—Alterations and additions proposed for John Buchan & Bros., Ltd., manufacturing confectioners, etc., at Stewart-st., for which the architects are Baillie & Sons, 4, West Regent-st., Glasgow.—Additions and alterations proposed for the Glasgow Royal Infirmary, for which the architects are Wylie, Shanks & Wylie, 204, West Regent-st., Glasgow.

Stonehouse.—Plans in hand for extensions for the Black Bull Garage, also workshops, for which the architects are Gavin Paterson & Sons, 6, Cadzow-st.

Clearing up Kiel.

The clearance of destroyed and irreparably damaged buildings following the R.A.F. raids on Kiel is proving to be no small task. It is estimated that there are 2,300,000 cubic metres (or roughly the same figures in tons) of broken masonry and rubble to be cleared. The method adopted by the City Council's Building Office, which is responsible for the clearance scheme under military government direction, is to complete the work in specific areas before the next district is tackled. Experts believe that at the present rate of progress it will be seven years before the clearing up is completed.

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

	Per ft. super. d.
18 oz.	3½
24 oz. Clear	5
26 oz.	6½
32 oz.	8½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼in.	6½
Rough cast double rolled, ⅛in.	7½
Rough cast double rolled ¼ in.	7½
Figure rolled, and Cathedral, white	6½
Figured rolled and Cathedral, tinted	9½
Rolled Sheet	6
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼in. thick	10½d.

Rolled plate is the same price as rough cast double rolled.

	Per ft. s.	d.
Wire Cast, ¼ in. thick	0	9½
Georgian Wired Cast	0	10
"Calorex" Sheet, 21 oz.	2	6
" 32 oz.	4	0
" " Cast, ¼in. thick	0	9½
" " ⅜ in. thick	1	0
" " ½ in. thick	1	2
Non Actinic Glass, ¼in. thick	0	9½
" " " ⅜ in. thick	1	0
" " " ½ in. thick	1	2

HOLLOW GLASS BLOCKS.

	s.	d.	
P.B. 2—5½ in. × 5½ in. × 3½ in.	2	6	each net
P.B. 3—7½ in. × 7½ in. × 3½ in.	3	6	"
P.B. 32—7½ in. × 7½ in. × 5½ in.	3	6	"

Radiused Corner Brick to match up with—

P.B. 2	4	6	"
P.B. 3	6	0	"
P.B. 32	6	0	"

LAW REPORTS

ASSESSMENT TO RATES OF AGRICULTURAL WORKERS' COTTAGES. QUESTION UNDER THE LOCAL GOVERNMENT ACT, 1929

KING'S BENCH DIVISIONAL COURT.

Before THE LORD CHIEF JUSTICE, MR. JUSTICE HUMPHREYS AND MR. JUSTICE SINGLETON.

Romford v. South Worcestershire Assessment Committee and Others.

This case, which came before the court on the appeal of Mr. J. F. Romford, a farmer, by way of a case stated by Worcestershire Quarter Sessions, raised an important question on the construction of Section 72 of the Local Government Act, 1929.

The material facts were these: Mr. Romford occupied two cottages for the accommodation of the agricultural workers he employed, but these cottages were not let to those workers. One was occupied by a foreman earning £4 a week without any deduction for the use of the cottage, and the other was occupied by a tractor-driver earning £3 15s. a week, from which 3s. a week was deducted for the use of his cottage. That was the maximum sum which could be deducted from a worker's wages for his cottage by virtue of an Order of December 1, 1940, made under the Agricultural Wages (Regulation) Acts, 1924 to 1940. This sum of 3s. applied everywhere throughout the country and bore no relation to the size or amenities of the cottage.

In March, 1944, Pershore Rural District Rating Authority decided to increase the assessment to rates of the two cottages, in one from £6 gross and £4 rateable to £12 and £7, and £10 and £6 in respect of the other cottage.

The South Worcestershire Assessment Committee having upheld this amendment of the valuation list, Mr. Romford appealed to Quarter Sessions, where both parties agreed that a special case should be stated for the opinion of the High Court on the question raised, which was whether the gross values of the two cottages ascertained in accordance with the provisions of Section 72 of the Act, 1929, were limited to the value of 3s. a week, at which they were to be reckoned in terms of wages in lieu of cash.

The appeal was dismissed.

The Lord Chief Justice, in the course of giving judgment, said the facts stated in the case were that Mr. Romford occupied the two cottages in question and that they were not let to the workers but to persons who were service tenants, who must be regarded as licensees, and that the person to whom the cottages were to be regarded as let was the farmer, Mr. Romford. Section 72 provided that agricultural cottages used for agricultural workers must, for the purposes of rating, be dealt with as though they were let to the farmer, subject to the restrictive covenant that he could only use them for the housing of workers on his farm. That having been established, it was clear that the value of the cottages for rating purposes was not necessarily limited to the 3s. a week, which was the utmost which Mr. Romford could get for them by deduction from wages. The true effect of Section 72 was that the gross rateable value was ascertained having regard to the rent at which the cottages might reasonably be expected to let, subject to the restrictive covenant placed on it, and that as the rent which the farmer might pay for it was more than the 3s. which he could get back by deduction from the workers' wages, it was to the possible higher rent that the Assessment Committee should have regard. That being so, the question left by the case to the court would be answered in the negative.

The other members of the court concurred, and the appeal was accordingly dismissed.

Mr. Harold Williams appeared for the appellant and Mr. G. D. Squibb for the respondents, the Pershore Rural District Rating Authority and the Assessment Committee.

HOUSING CONFIRMATION ORDER: THE AMENITIES OF A VILLAGE

KING'S BENCH DIVISION.

Before MR. JUSTICE CHARLES.

Bateson v. Witney R.D.C.

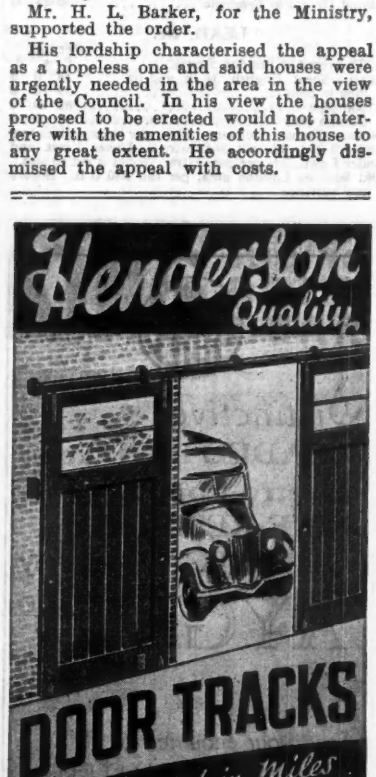
In this case Mrs. Joan Katherine Bateson, of Ramsden, Oxford, appealed against an order made in favour of the Witney Rural District Council sanctioning the purchase of about three acres of land adjoining her property, Fairview, at Ramsden, for the erection of houses.

The Council had obtained an order for the compulsory acquisition of the land, and this was confirmed by the Minister in October, 1945, a public inquiry having been held in the previous June. Mrs. Bateson now asked the Court to quash the order on the ground that the erection of houses on her land would interfere with the amenities of her property and would spoil the whole village.

Mr. E. Jones appeared for Mrs. Bateson and urged that as the property was valuable to his client, being entirely in the country, the erection of houses only a short distance away would interfere with its amenities and reduce its value and privacy. His client had purchased the property in 1940 and spent a large sum in carrying out alterations and improvements. In the circumstances, he contended that his lordship should quash the order.

Mr. H. L. Barker, for the Ministry, supported the order.

His lordship characterised the appeal as a hopeless one and said houses were urgently needed in the area in the view of the Council. In his view the houses proposed to be erected would not interfere with the amenities of this house to any great extent. He accordingly dismissed the appeal with costs.



BOOK REVIEW

Town and Country Planning Law. By EOIN C. MEKIE, B.L., and HAROLD B. WILLIAMS, LL.D., Barrister-at-Law, London. E. & F. N. Spon, Ltd., and Eyre & Spottiswoode (Publishers), Ltd. Price 37s. 6d., postage 7d. extra.

The publishers are to be congratulated on producing such an excellent book as this. It is not a large work, though it includes all that is necessary on the subject of town and country planning. It is in four parts. The first deals with town and country planning generally; the second part with statutory undertakers; the third part appendices; and the fourth part is the index to Parts I and II. The authors have succeeded in producing a work which will be of real use to all who are interested in or will have work to do in connection with the necessary but complex law of town and country planning.

In the introduction to the book the authors remind us that one of the most cherished illusions of the British public is faith in Magna Charta, when the executive was the Crown; whereas now the Minister of Town and Country Planning is the executive, who, though normally responsible to Parliament, actually possesses powers just as arbitrary as those of King John or King Charles.

Chapter I of the book gives a general outline of town planning from its commencement in 1909 to the new planning redevelopment and relocation of to-day. The authors, however, express their considerable doubt whether anything even approaching the best of the past can ever be achieved under this modern legislation. With this we are in agreement also, with the further remark that the worst errors of the past cannot now be repeated.

The book is teeming with information, and the authors have refrained from adopting the usual though questionable method of dealing with statutory provisions by annotating the Acts section by section.

The book is brought up to date by an addendum and a note on the Provisional Town and Country Planning (General Interim Development) Order, 1946. There is a Table of Statutes, and a very fine index. A Table of Cases might well have been added.

BOOKS RECEIVED

PREFABRICATION IN BUILDING. By Richard Sheppard, F.R.I.B.A. (London: The Architectural Press.) 18s. 6d. net.

TOMORROW IN EAST SUSSEX. Sussex Rural Community Council. (London: The Estates Gazette, Ltd.) 22s. 6d.

MODERN PUBLIC LIBRARIES. By E. H. Ashburner, B.Arch, F.R.I.B.A. (London: Grafton & Co.) 25s. net.

DICTIONARY OF ELECTRICAL ENGINEERING. By G. W. Stubbings. (London: E. and F. N. Spon, Ltd.) Price 10s. 6d.

ELECTRIC WIRING THEORY AND PRACTICE, 8TH ED. By W. S. Ibbetson. (London: E and F. N. Spon, Ltd.) Price 10s.

ELECTRICAL TECHNOLOGY FOR BEGINNERS, 2ND ED. By G. W. Stubbings. (London: E and F. N. Spon, Ltd.) Price 6s. 6d.

THE NEW CARPENTER AND JOINER, VOLS. 1, 2 AND 3. By R. V. Boughton, A.I. Struct.E. (London: The Caxton Publishing Co., Ltd.) Price £3 16s.

Building Science Abstracts.

Building Science Abstracts, Nos. 835-968, compiled by the Building Research Station, Watford, include *inter alia* references to the following: clay, clayware and glass; concrete and cement; organic building materials; paint and varnish, theory and design of structures.

TRADE NEWS

New Telephone Number.

Burleys of Uxbridge, Ltd., builders' merchants and sanitary specialists, Apex Works, Oxford-road, Denham, announce that their telephone number is now Uxbridge 701-2 (two lines).

A Recent Booklet.

We acknowledge receipt of a booklet entitled "Personnel Policy" from the United Steel Companies, Ltd., Sheffield, which deals with their policy with regard to the staffs and workmen in their employ.

Films in Industry.

With the aid of a 16 mm. cinema projection unit recently installed in the head office of Messrs. Travis and Arnold, Northampton, the firm hope to exhibit a wide range of building films. Recently shown to a small private audience of local authority officials and builders were films on Canadian logging, structural mechanics, kitchen planning and Coventry's rebuilding problems.

A Plaster Board Cutter.

A machine for cutting plaster board has recently been developed by Messrs. Harold G. Ruddick and Co., engineers, of 15, Western-street, Brighton, 1. The machine is worked by a hand wheel which causes automatically-tensioned two-way knives to travel at high speed simultaneously above and below the board. The board is then bent and severed over the straight-edge provided. Materials other than plaster board may be cut on this machine, which (being a self-contained unit) can be attached to the front of the work bench or arranged as a portable unit for use on sites.

Change of Address.

The Home Sales Departments of the Associated Lead Manufacturers, Limited, have now returned to London and all future inquiries should be addressed to their new offices at 14, Finsbury-circus, London E.C.2. Telephone: London Wall 4394. The Buying and Alloy Departments have also removed to the above address, which will now serve the London Home Sales and Alloy Sales and Buying Departments of the constituent companies—Locke Lancaster and W. W. and R. Johnson and Sons, Ltd.; The Cookson Lead and Antimony Co., Ltd.; Foster, Blackett and James, Ltd.; Walkers, Parker and Co., Ltd.; The Librex Lead Co., Ltd.; The London Lead Oxide Co., Ltd.; The Oidas Metals Co., Ltd. All inquiries for export sales should continue to be addressed to The Associated Lead Manufacturers Export Company, Limited, Limpsfield Court, Oxted, Surrey. Telephone: Oxted 840.

A Portable Electric Hammer.

A new portable electric hammer has been added to the well-known range of "Wolf" electric tools, manufactured by S. Wolf and Co., Ltd., Pioneer Works, Hanger-lane, Ealing, W.5.

This hammer has been developed over a considerable period from a design based on an original principle, and is fully covered by British patents.

Extensive tests have been carried out, and it is stated that after 200 hours' continuous running under full load the machine was found to be still in perfect running order. Using a No. 14 Rawldrill, it is claimed that a penetration in concrete of 2 in. per minute can be obtained, and ¾ in. per minute with a 1-in. Cruciform drill. The tool weighs 14 lb., its length is 20 in., and the consumption of the universal A.C./D.C. electric motor is 275 watts; 700 blows per minute of 4/5 foot pounds are struck.

Mechanics and operators will find the mechanism easy to operate, and the versatility of the hammer will relieve them of many tiring jobs.

Asphalte Company's Larger Premises.

The General Asphalte Co., Ltd., inform us that they have taken enlarged accommodation for their Birmingham offices and depot. The new address is 56, Milk-street, Digbeth, Birmingham, 5, and the telephone number remains as before, Midland 2301-2.

Price of Metal Windows.

The British Metal Window Manufacturers' Association, Ltd., announce that as a result of increases in manufacturing costs, especially wages, the price of standard metal windows has been increased by 5 per cent. The increase operates on all deliveries made on or after May 27.

Foire de Paris.

We are informed that Tangyes, Ltd., are exhibiting at the Paris Fair a considerable number of products, including horizontal and vertical Diesel engines, a new type universal hydraulic testing machine, a vertical treble ram washing pump, a compressor unit, hydraulic lifting jacks and also new design hydraulic jacks.

A Year's Progress.

The Annual Report of the Timber Development Association just issued for 1945 bears witness to the expansion of its activities, and the policy decided upon by the executive Council in 1944 has obviously been vigorously pursued. The internal organisation of the Association has been replanned upon modern business lines, and four specialist departments—namely, Education, Publicity, Statistics and Information (including Library) and Timber Utilisation—have been instituted, each in charge of a full-time executive.

FUTURE CONSTRUCTION

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

JUNE 10.

†***Nottingham T.C.**—Four hutted blocks with site works and services at Mental Defective Colony, Aston Hall, Aston-on-Trent, Derbys. City E. and S. Dep. £5. Tenders by June 25.

JUNE 13.

Liverpool T.C.—Kitchen and canteen at Dingle Vale school. City A. and Director of Housing. Dep. £2 2s.

JUNE 15.

†***Cheshunt U.D.C.**—36 flats at Park-la., Waltham Cross. Clifford Lee and Gale, Moorgate Hall, 153, Moorgate, E.C.2. Dep. £2 2s. Tenders by July 8.

†***Nantwich U.D.C.**—62 houses at Weaver-rd. site. E. H. Bailey, F.S.I., E. and S. Dep. £5.

†***Torpoint U.D.C.**—116 houses at Union-rd. site. H. S. Haughton and Partners, Quantity Surveyors, 14, Glenwood-rd., Mannamead, Plymouth. Dep. £2 2s.

JUNE 17.

Dearne U.D.C.—76 houses at Bolton-upon-Dearne. W. H. Adams, Council Offices. Dep. £2 2s.

Isle of Ely C.C.—Boundary retaining wall at Wisbech Poor Law Institution. R. D. Robson (A.), County A. Dep. £2 2s.

†***Isle of Wight C.C.**—Erection of Secondary Modern School at Northwood Park, Cowes, in permanent construction. Sydney Gregson (F.), County A., County Hall, Newport, I.W. Dep. £5 5s. Tenders by **July 8.**

†**Kingston-on-Thames.**—2 blocks of 4 flats at King's-rd. T.C. Dep. £2 2s.

Liverpool T.C.—Conversion of "Oakfield," Cuckoo-la., Gateacre, into Special School. City A. and Director of Housing. Dep. £2 2s.

London County Council.—**Reconstruction and widening of Deptford Creek bridge. Chief E. Dep. £20.**

Manchester T.C.—102 three-storeyed flats at Collyhurst clearance area. Housing Dept. £3 3s.

Rushden T.C.—24 houses at Higham-rd. estate. S. Dep. £2 2s.

St. Marylebone B.C.—172 flats (13 blocks) at Barrow Hill-rd. Sydney A. Paine, 2, New-ct., Carey-st., Lincolns Inn, W.C.2. Dep. £5 5s.

Wimbledon T.C.—62 flats in 11 blocks at Gap-rd. T. Webster, A.M.Inst.C.E., B.E. and S. Dep. £5 5s.

JUNE 18.

Hertford T.C.—36 houses, Horns Mill, No. 3 site at Brickendon-la. E. C. Harris and Partners, FF.S.I., 3, Bedford-sq., W.C.1. Dep. £2 2s.

Ludlow T.C.—(a) 4 pairs houses type "N"; (b) 10 pairs type "S"; (c) 7 blocks of four type "E/W." S. N. Shrimpton and Son, Architects, Knighton, Radnorshire. Dep. £2 2s. per type.

Portslade-by-Sea.—12 pairs of houses and 3 blocks of flats at Drove-rd. E. Rudgley, M.Inst.M. & Cy.E., E. and S. Dep. £2 2s.

***Watford R.D.C.**—8 houses at Toms-la., Bedmond. E. and S. Dep. £1 1s.

JUNE 19.

Brighton C.B.—Section Ia, 32 houses and 24 Duplex flats; Section IIa, 46 houses and 44 Duplex flats; Section Ic, 4 houses at Hollingbury estate. D. J. Howe, M.I.C.E., M.Inst.M & Cy.E., B.E. and S. Dep. £3 3s. each for sections Ia and IIa, and £2 2s. for section Ic.

Caterham and Warlingham U.D.C.—12 houses at Site 5, Slines Oak-rd., Woldingham. E. and S.

†**Thedwastre R.D.C.**—8 houses at Rickinghall Interior. Hunt and Coates, Architects, 84, Guildhall-st., Bury St. Edmunds. Dep. £3 3s.

Worcester T.C.—40 houses at Ronkswood-Newtown, No. 1 estate. City E. Dep. £5 5s.

JUNE 20.

Alton R.D.C.—18 houses at Headley. C. Dep. £10 10s.

Barnes T.C.—12 flats at Beverley-rd. B.E. and S. Dep. £2.

***Ringwood and Fordingbridge R.D.C.**—3 blocks of three dwellings each. Frank Andrews (L.), 45, High-st., Ringwood. Dep. £2 2s.

JUNE 21.

Bangor T.C.—50 houses at Coed Mawr estate. B.S. Dep. £2 2s.

St. Marylebone B.C.—140 flats and 11 shops at Church-st. Crosher and James, Bank-chbrs., 329, High Holborn, W.C.1. Dep. £5 5s.

†***Swinton and Pendlebury T.C.**—16 houses at Beechfield estate. J. C. Prestwich and Sons, M.A. (F.), Bradshawgate-chbrs., Leigh, Lancs. Dep. £2 2s.

Tavistock R.D.C.—18 houses at various sites and 2 bungalows. C. Dep. £3 3s.

West Midlands Joint Electricity Authority.—Erection of 4 cooling towers, etc., at Walsall generating station. H. F. Carpenter, Clerk and Manager. Dep. £5 5s.

JUNE 22.

Bromley T.C.—Relaying gymnasium floor at Raglan-rd. school. B.E.

***King's Lynn T.C.**—78 houses at Gaywood Park estate. J. R. Courtney, Housing A., Town Hall. Dep. £3.

JUNE 24.

†**Barking T.C.**—14 houses at Scrattons Farm estate, Part 2. C. C. Shaw (F.), Boro' A. Dep. £2 2s.

Crewe T.C.—92 houses at Rolls-ave., Railton-ave., and Wheelman-rd. L. Reeves, A.M.Inst.C.E., Architect, Municipal-bldgs. Dep. £2 2s.

Hornsey T.C.—24 flats at Stroud Green-rd. J. H. Melville Richards, B.E. and S. Dep. £2.

***Oswestry T.C.**—110 houses, together with paths and boundary fences at Shrewsbury-rd.

site, Section No. 1. S. Fox-Davies, M.Inst.B.A., Memorial Hall, Oswestry. Dep. £4 4s.

JUNE 25.

Bathavon R.D.C.—42 dwellings at Whitchurch, nr. Bristol. Grayson and Goldsmith (F.), 7, Bridge-st., Bath. Dep. £2 2s.

***Isle of Wight R.D.C.**—3 pairs of houses at Calbourne. E. L. Smith and Son (L. and A.), High-st., Sandown. Dep. £2 2s.

***Isle of Wight R.D.C.**—3 pairs of houses at Shorwell. E. L. Smith and Son (L. and A.), High-st., Sandown. Dep. £2 2s.

***Lleyn R.D.C.**—32 houses at six sites. C., Metro-bldgs., Pwllheli.

JUNE 26.

***Bath T.C.**—128 "Unity" type houses at Wansdyke. City E. Dep. £2 2s.

Stratford-on-Avon R.D.C.—21 houses at Headland-rd., Welford-on-Avon. J. E. Bagnall and Son, Quantity Surveyors, York House, Gt. Charles-st., Birmingham, 3. Dep. £1 1s.

JUNE 29.

Douglas (I.M.) T.C.—110 houses at Spring Valley estate. B.E. and S. Dep. £2 2s.

Penrith U.D.C.—80 houses at Scaws estate, Contract No. 2. E. and S. Dep. £2 2s.

Salop Standing Joint Committee.—4 police houses at 3 sites. A. G. Chant, County A. Dep. £2 2s.

JULY 1.

Blackwell R.D.C.—28 houses at Sporton-la., South Normanton. Architect and Housing Superintendent, "Dale Close," 100, Chesterfield-rd. South, Mansfield. Dep. £2 2s.

***Brighton E.C.**—(1) Temporary classrooms at Moulsecoomb Junior School; (2) youth hut at Woodingdean; (3) dining hut at St. Mary Magdalen's School; (4) adaptations at Circus-st. School for Art School, Technical College and Cleansing Centre; (5) adaptations at Preston-rd. School for Evening Continuation School. B.E. and S. Dep. £3 3s.

JULY 2.

***Metropolitan Water Board.**—Construction of engine and pump house, administrative offices and chlorinating house. Chief E. Dep. £10 to the Comptroller.

***Wem U.D.C.**—(a) 50 houses at Lowe Hill-rd. Hind and Brown (L. and A.), 22, Glebe-st., Stoke-on-Trent. Dep. £2 2s.; (b) roads, sewer and water main at Lowe Hill-rd. S. Dep. £2 2s.

JULY 5.

***Sherborne U.D.C.**—24 houses and conversion of existing building at Horsecastles. T. W. Sharpe (L.), Council Offices.

MISCELLANEOUS

JUNE 17.

Barrow-in-Furness C.B.—Demolition and clearance of 110 surface shelters. B.E. and S.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

JUNE 14.

Liverpool T.C.—Internal painting at Walton Hospital. City E. and S.

JUNE 17.

West Riding C.C.—Internal painting and decorating of schools at Morley Divisional area. A. E. Turner, Div. Ed. Officer, Ed. Office, Queen-st., Morley.

JULY 3.

***London County Council.**—Repainting Highgate Archway. Chief E. Dep. £1.

ROADS, SEWERAGE AND WATER WORKS

JUNE 17.

Nottingham T.C.—Laying and jointing of approx. 6 miles of 18 in., 15 in. and 12 in. Class "C" spun concrete-lined pipes. B. W. Davies, E. and General Manager, Water Dept. Dep. £5 5s.

Thirsk R.D.C.—Laying approx. 1,600 yds. of 3-in. cast-iron water main at Ainderby Quernhow. C.

JUNE 19.

***Hornsey T.C.**—Roads and sewers. B.E. and S. Dep. £2.

Portsmouth T.C.—Roads and sewers at Sevenoaks-rd., Wymering. City E. Dep. £2 2s.

Worcester T.C.—Laying of sewer from Springhill to Newtown-rd. City E. Dep. £3 3s.

JUNE 20.

Rushden U.D.C.—Surface dressing. S.

JUNE 21.

Halstead R.D.C.—Roads and sewers, etc., at Christmas Fields. C. Dep. £3 3s. (cheque only).

JUNE 24.

***Hatfield R.D.C.**—Roads and sewers at Birchwood site. E. and S. Dep. £1 1s.

JULY 1.

Dawley U.D.C.—Construction of approx. 2,600 lin. yds. of 9-in. and 12-in. glazed stoneware pipe sewers, etc., and sewage disposal works. Willcox, Raikes and Marshall, engineers, 33, Gt. Charles-st., Birmingham, 3. Dep. £5 5s.

JULY 5.

Upper Stour Valley Main Sewerage Board.—Extensions at sewage disposal works. Geo. Plant Deeley, M.Inst.M. & Cy. E., Engineer, 13, Church-st., Stourbridge. Dep. £5 5s.

PUBLIC APPOINTMENTS

*Full details of Public Appointments marked * are advertised elsewhere in this issue. Those marked † have been advertised in previous issues.*

JUNE 13.

***Manchester E.C.**—Clerk of Works.

JUNE 14.

***Beckenham T.C.**—Temp. Senior Technical Assistant.

***Coventry T.C.**—Clerks of Works.

***South Westmoriand R.D.C.**—Clerk of Works.

JUNE 15.

***Epping R.D.C.**—Clerk of Works.

JUNE 17.

†**Bedford T.C.**—Town Planning Assistant.

†**Bexhill T.C.**—Clerk of Works.

***Esher U.D.C.**—Temp. Licensing Officer.

†**Essex C.C.**—Clerks of Works.

***Huddersfield T.C.**—(a) Senior Assistant Architect; (b) Two Assistant Architects; (c) Two Architectural Assistants; (d) Assistant Quantity Surveyor.

Rhyl U.D.C.—Engineering Assistant.

***Taunton T.C.**—Clerk of Works.

†**Wembley T.C.**—Clerk of Works.

†**Wrexham T.C.**—Building Inspector.

JUNE 18.

†**Stockton-on-Tees T.C.**—Assistant Architect or Quantity Surveyor.

JUNE 19.

Flintshire C.C.—Clerk of Works.

***Leicester T.C.**—Two Inspectors of Works.

***Linasey (Lincs.) C.C.**—General Assistant.

***Nottingham T.C.**—Architectural Assistant.

***Uxbridge U.D.C.**—Architectural Assistant.

***Uxbridge U.D.C.**—Quantity Surveyor.

†**Wycombe R.D.C.**—Architect and Surveyor.

JUNE 20.

†**Liverpool T.C.**—(a) Chief Housing Architect; (b) Chief Surveyor; (c) Quantity Surveyor; (d) Assistant Surveyor.

***Oxford T.C.**—Clerks of Works.

†**Southend-on-Sea C.B.**—(a) 1st class Architectural Assistant A; (b) 1st class Architectural Assistant B; (c) 1st class Quantity Surveying Assistant A; (d) 2nd class Quantity Surveying Assistant; (e) Senior Engineering Assistant; (f) Two 2nd class Engineering Assistants; (g) 1st class Planning Assistant A; (h) Senior Estates Assistant; (j) 1st class Estates Assistant B; (k) Assistant Mechanical and Electrical Engineer; (l) Building Surveyor.

JUNE 21.

Ches. E.C.—(a) Assistant Quantity Surveyor; (b) Heating Engineer; (c) Electrical Engineer.

***East Suffolk C.C.**—Architectural Assistants.

***Fulham B.C.**—Housing Maintenance Superintendent.

†**Manchester T.C.**—Works Manager.

***Middlesex C.C.**—(a) Full-time Assistant Master to teach Mathematics and Building Science.

***Surrey C.C.**—Chief Quantity Surveyor.

***West Sussex C.C.**—Assistant Heating and Electrical Designer-Draughtsman.

JUNE 22.

†**Birmingham E.C.**—Principal of College of Arts and Crafts and Director of the Branch Schools of Art.

***Ealing T.C.**—Architectural Assistants.

†**Eastbourne C.B.**—(1) Assistant Building Inspector; (2) Surveyor Draughtsman.

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***Newcastle-on-Tyne E.C.** — (a) Assistant Master to take Brickwork and Plastering; (b) Assistant Master for Carpentry, Joinery and Metalwork; (c) Assistant Master for Plastering and Painting and Decorating.

***Solihull U.D.C.** — Chief Architectural Assistant.

†**Warwick C.C.**—Buildings Accounts Clerk.

†**Yeovil and District Joint Town Planning Committee.**—Town Planning Officer.

JUNE 24.

***Dagenham T.C.**—Building Manager.

***Malden and Coombe T.C.**—(a) Quantity Surveyor; (b) Licensing Officer.

***Newport (Mon.) C.B.**—(a) Senior Assistant Quantity Surveyor; (b) Assistant Quantity Surveyor.

***Peterborough T.C.** — Two Architectural Assistants.

***Tynemouth C.B.**—Architectural Assistant (Temp.).

JUNE 25.

***Tarvin R.D.C.**—(a) General Engineering or (b) Architectural Assistant.

JUNE 28.

***Bradford T.C.**—(a) Two Principal Assistant Architects; (b) Principal Quantity Surveyor; (c) Senior Assistant Architect; (d) Assistant Architect; (e) Architectural Assistant.

JUNE 29.

***Birmingham E.C.**—Assistant Teacher of Building Construction.

***Dorset C.C.**—(a) Two Assistant Architects; (b) Two Clerks of Works; (c) four Junior Architectural Assistants; (d) Junior Quantities and Accounts Assistant; (e) four Improvers—Architectural.

JUNE 30.

***Bolton E.C.**—Assistant in Building Dept.

JULY 1.

***North Lincs Joint Planning Committee.**—Planning Assistant.

***Robert Gorden's College, Aberdeen.**—Junior Lecturer and Studio Instructor.

JULY 3.

***Kirkcaldy T.C.**—Chief Architectural Assistant.

JULY 5.

***Norfolk E.C.**—Two Senior Architectural Assistants.

NO DATE.

***Cardiff E.C.**—(1) Lecturer in Mathematics and English; (2) Lecturer in Building Subjects; (3) Instructor in Brickwork; (4) Instructor in Carpentry and Joinery.

***London County Council.**—(a) Temporary Planning Officers; (b) Temporary Technical Assistants.

***National Joint Production Council for the Building Industry.**—Production Officers.

***Portsmouth E.C.**—Lecturer and Studio Instructor.

GENERAL BUILDING WORK

(LONDON)

Acton.—HALL.—The St. Peter's Church Committee propose a hall and vicarage in Southfields-rd. The architect is Mr. N. F. Cachemaille-Day, F.R.I.B.A., Mimram Cottage, Queen Hoo-lo., Tewin, Herts.

Battersea.—HOUSING.—B.C. are to acquire for housing purposes two sites near the south end of Tyneham-rd.

Battersea.—HOUSING.—L.C.C. have informed B.C. that they agree to compulsory purchase orders for the acquisition of the Honeywell-rd., Bolingbroke-gr. and Sheepcote-la. extension sites.

Deptford. — HOUSING. — B.C. has requested L.C.C. to acquire the Knoyle-st. and Africa-rd. sites for permanent housing.

Deptford.—HOUSING.—L.C.C. has approved B.C.'s plans for dwellings to be erected on the Clyde-st. site.

East Acton.—HOUSES.—Five houses are to be rebuilt in East Acton-la., W.3, for Messrs. Matthews and Griffiths, 21, Vyner-rd., W.3. Three houses in Blandford-rd. are to be rebuilt for Messrs. E. Evans and Sons, 251, Lavender-hill, Clapham Junction, S.W.

Greenford.—HOUSES.—Plans have been prepared by Mr. V. L. Johnson, 88, Staines-rd., Twickenham, for rebuilding 4 houses in Middleton-ave.

Hammersmith.—HOUSING.—L.C.C. have provisionally approved plans for the erection of flats in Askew-rd. by B.C.

Hampstead.—FLATS.—B.C. propose housing scheme, community centre, laundry and drying rooms, etc., at Well-walk and New End-sq. The architects are Messrs. James and Bywaters and Rowland Pierce, 5, Bloomsbury-st., W.C.1. The quantity surveyors are Messrs. A. E. Thornton-Firkin and Partners, 17, Fitzhardinge-st., Portman-sq., W.1.

Hampstead.—LIBRARY.—B.C. is considering the rebuilding of Cricklewood Branch Library in Westbere-rd., N.W. A report has been prepared by Mr. Hugh A. Gold, F.R.I.B.A., 14, Bedford-row, W.C.1.

Paddington.—HOUSING.—B.C. propose to purchase site in an area south of Bishop's Bridge-rd. for housing.

Paddington.—HOUSING.—B.C. are to purchase sites in Droop-st. and Peach-st. for erection of houses.

Poplar.—BRIDGE.—B.C. has approved scheme by L.N.E.R. for the reconstruction of Old Ford-rd. underline bridge at an estimated cost of £100,000.

Poplar.—TEMPORARY HOUSES.—B.C. is to acquire on lease a site in Tredegar-rd. for temporary houses.

Shaftesbury Avenue.—ALTERATIONS.—To Exide House, 231, Shaftesbury-ave. The contractors are Messrs. Allsites, Ltd., 55, Pall Mall, S.W.1. The architects are Messrs. Herbert Ward and Partners, 4, Hill-rd., Wimbledon, S.W.

Stoke Newington.—HOUSING.—B.C. is to agree to the development for permanent housing sites in Manor-rd. and Heathland-rd.

Stoke Newington.—HOUSING.—L.C.C. has sanctioned the borrowing by the B.C. of £21,000 for the acquisition of a site in Milton-gr. for the erection of flats.

Stoke Newington.—SUB-STATIONS.—B.C. has approved proposals of Electricity Committee for the acquisition of sites in Springdale-rd. and Heathland-rd. for the erection of sub-stations.

Walthamstow. — HOUSING.—B.C. has provisionally decided that an area in Grove-rd. and College-rd. be reconstructed in accordance with layout submitted by Borough Architect, which includes the erection of 28 houses.

Wandsworth.—HOUSING.—Mr. Joseph Hill, F.R.I.B.A., is the architect for B.C.'s scheme for the erection of dwellings on the Rinaldo-st. site.

(PROVINCIAL)

Bolton.—T.C. approved: 42 houses at Moss Bank-way and land off Moss Bank-way for A. S. Woods, Easedale-rd.; layout of housing site, streets and levels at Moss Bank-way for R. R. Rothwell & Co., Ltd.; extensions to Little Bolton Bleachworks, Slater-la., for Slater & Co., Ltd.; works canteen and welfare centre at Dean Weaving Mill for J. Johnson (Bolton), Ltd.; works garage at Salop-st. for Thos. Carling & Co., Ltd.

Bradford.—T.C. propose 382 houses at Clayton estate.

Brierley Hill.—U.D.C. propose community hall, community centre, public baths, etc., with frontages at High-st., Pensnett-rd. and Hickman-rd., Brooksmoor.—Municipal offices proposed.

Coventry.—Smedley & Grey, Ltd., motor panel makers, Walsgrave, propose rebuilding works.

Dewsbury.—T.C. propose 58 houses at Lees estate.

Durham.—County E.C. propose completing additions at Crook New County school and Easington Colliery Modern school; M.O.E. has sanctioned alterations and additions at Stockton Junior Technical school, for C.C., at £6,000. —C.C. proposes reserving land for educational purposes at Brandon Colliery (two nursery schools, infants' school, junior school and modern school); Ushaw Moor (two nursery schools, infant, junior and modern schools); Chester-le-Street (nursery school); Durham (community centre); Easington (modern school and nursery school).

Gateshead.—Cackett, Burns Dick & McKellar, 21, Ellison-pl., Newcastle-on-Tyne, are architects for factory for Alfred E. Jones, Ltd.—Sigmund Pumps, Ltd., propose factory at Team Valley Trading estate. Architects are Yorke, Rosenberg & Mardall, 35, Welbeck-st., London, W.1.

Irlam.—Lancs E.C. propose branch library at Liverpool-rd.

Kenilworth.—Associated company of Eagle Engineering Co., Ltd., Warwick, propose works off Queen's-rd. and Randall-rd.

Lancaster.—R.C. Diocesan Finance Board propose Catholic Church.

Lancaster.—T.C. propose conversion of "Fleece" hotel, Penny-st. and "The Hollies," Greaves-rd., into flats.

Leeds.—Preparatory plans prepared for housing estate with civic centre to include open-air bathing-pool and library at Belle Isle and Middleton, for T.C.

Manchester.—T.C. propose 2,000 aluminium houses at Wythenshawe estate.—T.C. approved: Alterations to factory at Gibbon-st., Bradford, for F. G. Calvert & Co., Ltd.; reinstatement of works at Vernon-st. and Newton-av., Longsight, for Parmiter, Hope & Sugden, Ltd., A. E. Bradburn (L.), 5, Jordangate, Macclesfield; additions to works, Bottomleyside, and alterations to works, Crumpsall Vale, Blackley, for Imperial Chemical Industries, Ltd., Hexagon House, Blackley; works canteen at Derby-st., Cheetham, for Empire Cap Works, Ltd.; motor showrooms, 41-43, Oxford-rd., Chorlton-upon-Medlock, for Royal Motors, Ltd., A. R. Walsingham (L.), 50, High Grove-rd., Cheadle, Ches.

Newcastle-on-Tyne. — Amended plans by Dryden & Shaw, 6, Market-st., Newcastle, for 40 flats at Silver Lonnen and Redesmarth-pl. approved.

Newcastle-on-Tyne. — Extensions, including garage and offices to be made to works of British Glue & Chemical Co., White-st., Newcastle. Plans by F. A. Smith, 65, London-rd., Leicester; Michell Bearings, Ltd., South Benwell, Newcastle, to erect canteen & kitchen at works.

Oldham.—E.C. propose Infants' and Junior school at Scottfield.

Preston.—Lostoch Hall Community Centre Committee propose community centre.—Lancashire Mental Hospitals Board propose renewal of equipment and improvements to bakery, laundry, etc., at Whittingham Mental Hospital, at £10,500.

Rochdale.—E.C. propose school for sub-normal children at High Birch.—Courtauld's, Ltd., Bowst., Castle, propose two additions to mill.

Southampton.—Southern Railway approved scheme for dockside buildings at Ocean dock.

South Kesteven.—R.D.C. propose 604 houses.

Stockport.—T.C. approved: 36 houses off Edmonton-rd., Woodsmoor and Woodsmoor-la., for Emlyn Jones, Priory-la., Reddish; motor showrooms and petrol filling station at Marple-rd., Offerton, for M. Chesters.—E.C. propose canteen at Belmont Secondary school; school at Vale-rd. site.

Stoke-on-Trent.—Board of Management of City General Hospital propose extensions and additional bedrooms at Nurses' Home.

Stretford.—T.C. propose provision of four public swimming baths.

Urmston.—U.D.C. propose community hall at Humphreys estate.

Wakefield.—Beverley Bros., Ltd., Eagle Brewery, propose hotel at junction of Doncaster-rd. and Asbriggs-rd.

Walsall.—T.C. approved extensions to factory at Bloxwich-rd., for J. Hawley (Walsall), Ltd.; factory at Bloxwich for Graysons' Products, Ltd.

Yarmouth.—E.C. approved additions at Technical School, Gorleston, and school kitchen at Lawn-av.

TENDERS

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Aberystwyth.—(a) Roads and sewers at Llanfarian estate; (b) nine pairs houses, for R.D.C. John Feaver, E. & S.: (a) *Direct labour, £2,286; (b) *L. J. Evans & Sons, Tregaron, Cards, £19,980.

Andover.—6 houses at Vernham Dean, for R.D.C.: *William Bell & Sons (Andover), Ltd., £7,218.

Banbury.—24 houses and site works at Hook Norton, for R.D.C.: *W. T. Hicks, Hook Norton, £29,826 (subject to M.H. approval); 12 houses at Claydon, for R.D.C.: *Hinkins & Frewin, Ltd., Canal-st., Oxford, £14,062 (approved by M.H.).

Bebington.—50 houses, for T.C. L. Birch, B.E.: *Sefton Building Co., Ltd., Unity-bldgs., 67, Ormskirk-rd., Aintree, Liverpool.

Belfast.—46 houses and construction of roads and sewers at Monkstown, for R.D.C.: *James M'Farlane, Glengormley, £61,215 (subject to approval of Ministry).

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Blackburn.—80 steel houses at Laburnham-rd. site, for T.C.: *William Townson & Sons, Park Hill Saw Mills, Bolton, £104,560.

Bradford and Melksham.—Nine pairs of houses at Broughton Gifford, for R.D.C. R. P. Pearce, S. & A.: *West Wilts Construction, £22,330.

Brecon.—64 houses at Ffynnon Dewi estate, for T.C.: *T. F. Howells, Caerphilly, £73,984 (subject to M.H. approval).

Chapel-en-le-Frith.—Extensions to works for Feroda, Ltd., Husband & Son, architects, 388, Glossop-rd., Sheffield, Broomhill, Sheffield 10: *Kirk & Kirk, Ltd., Putney, London, S.W.15.

Clitheroe.—52 houses at Henthorn-rd. site, for T.C.: *Clitheroe and District Association of Building Trades Employers, £62,412.

Cowes (I. of W.).—30 houses at Gort-rd. site, for U.D.C.: *W. H. Brading and Son, East Cowes, £37,050 (subject to M.H. approval).

Docking.—66 houses at Burnham Market, Dersingham, Docking and Sedgeford, for R.D.C.: ‡Allnatts (London), Ltd., £88,628 (subject to M.H. approval).

Easingwold.—26 houses, for R.D.C.: *A. Stephenson, Harrogate, £29,870.

Gateshead.—Works for T.C. Houses at Beacon Lough, for T.C. H. J. Cooke, Chief Architect: *A. V. Clerey & Sons, 14, Frederick-st., Sunderland, £471,363 (negotiated figure, subject to M.H. consent). 12 flats at Blue Quarries, for T.C. H. J. Cooke, Chief Architect: *Clark & Son, Gregson-ter., New Seaham, Co. Durham, £16,223.

Goldthorpe. — Telephone Exchange, for M.O.W.: *T. Jenkinson & Son (Doncaster), Ltd., Bentley-rd. Works, Doncaster.

Guisborough.—68 houses, for U.D.C.: *N. McCreton, Ltd., Middlesbrough (subject to M.H. approval).

Hebburn.—Extensions for Bushing Co., Ltd.: *A. Anderson (Contractors), Ltd., Stanmore-rd., Newcastle.

Ilford.—40 houses at Oaks-la. estate and rebuilding 10 at Colvin-gdns., for T.C.: *G. Holmes White, Ltd., £58,058.

Ilkley.—50 houses at Mayfield-av., for U.D.C. A. Skinner, E. & S.: *Arthur Stephenson, 52, Hookstone-chase, Harrogate.

Jarrow-on-Tyne.—Additional accommodation at Technical School and Evening Institute, for Durham County E.C. F. Willey, 34, Old Elvet, Durham, architect: *H. T. M. Wigham, Castletown, Sunderland, £10,310 (subject to approval of M.O.E.).

Kingston-on-Thames.—48 flats at Park-rd., for T.C.: *W. H. Gaze & Son. Ltd., £46,675 (subject to M.H. approval).

Lambeth.—Works for B.C. Rebuilding 27 cost-of-works dwellings at Bloomfield estate: *V. E. Wilson, 81, Gledwood-gdns., Hayes, Middx, £28,700 (subject to M.H. and W.D.C. approval); rebuilding six dwellings at St. Louis estate: *Eason & Sutton, Ltd., 321, Upper Elmers End-rd., Beckenham, £7,542 (subject to M.H. and W.D.C. approval).

Liverpool.—Additions and alterations at Liverpool Wholesale Fruit Market, for T.C. L. H. Keay (F.), City A., Blackburn-chbrs., Dale-st., Kingsway: *Lloyd & Cross, Ltd., 68, Argyle-st., Birkenhead, £3,975.

Liverpool.—Works for T.C. Alterations and additions at Unit factories Nos. 1 and 2, Fleming-rd., Speke: *Marshall Bros., 3-5, Salop-st., Liverpool 4, £5,598; 20 houses at Cantril Farm estate: *Unit Construction Co., Ltd., Benthamdr., Liverpool, £21,240.

Llanfyllin.—12 houses at Meifod and Llanerfyl sites, for R.D.C. Ll. O. Evans, S.: *S. Hughes, Rhos, Wrexham, £14,690.

London (Air Ministry). Directorate of Contracts.—List of new contracts to the value of £500 or over for the week ended June 1, 1946:—Installation of compressed air systems, Maddock & Wright, Leicester.

London C.C.—Contracts exceeding £2,500 placed by L.C.C. during period ended May 29: Wiring and fittings for electric lighting, etc., in blocks 4, 5 and 6 of dwellings, estate office and workshop at Hilldrop-rd. housing site, Islington: *Read & Partners, Ltd., 28-30, Hatfields, Stamford-st., S.E.1; wiring and fittings for electric lighting, etc., in blocks 1 to 6 of dwellings at Tanners Hill housing estate, Deptford: *Read & Partners, Ltd., 28-30, Hatfields, Stamford-st., S.E.1; wiring and fittings for electric lighting, etc., in blocks 1 to 5 of dwellings at Wapping housing estate (Malay-st. area), Stepney: *Pemberton & Sturgess (Gt. Britain), Ltd., 136, Cromwell-rd., S.W.7.

London (War Dept.).—Works contracts placed by War Dept. for week ended June 1:—*Staffs*: Roadwork, Apex Asphalters, Ltd., Stockport. *Berks.*: Miscellaneous work, H. Burfoot & Son, Eton Wick, Bucks. *London*: Miscellaneous work, Sloggetts (Contractors), Ltd., London, S.W.7. *Hampshire*: Roadwork, W. & J. Glossop, Ltd., London, W.6. *Dorsetshire*: Miscellaneous work, Jesty & Baker, Weymouth. *County Antrim*: Miscellaneous work, Jas. Miskimmin & Son, Ltd., Belfast.

Maidenhead.—58 houses at Pinkneys-rd. estate, for B.C.: *H. Street & Co., £19,850 (18); ‡Halfacre & Young, £19,012 (16); *J. M. Jones & Sons, £28,336 (24).

Maltby.—60 houses at Manor Park, scheme No. 2, for U.D.C. H. Chadwick, M.I.M.C.E.: *Mollekin Bros., Rotherham-rd., Maltby, £69,680.

Meriden.—Six houses at Needler's End, Balsall Common, for R.D.C. McKewan, Fillmore & McKewan (F.), 318, Hampstead-rd., Handsworth, Birmingham: *George Deeley & Sons (in lieu of tender previously accepted).

Newcastle-on-Tyne.—Extensions for Domestos, Ltd., Albion-row: *Stephen Easten, Ltd., Westgate Grange, Newcastle.

Newhaven.—50 houses at Meeching estate, for U.D.C. Alwyn Underdown (F.), F.I.A.S., E. & S.: *The Dorset Building & Decorating Co., 11, Compton-av., Brighton, £53,758.

New Malden.—Six houses at Stanley-av, John A. Green (L.), architect, Blakes-av., New Malden: *Baileys, Builders & Contractors, Ltd., 2, George-rd., New Malden, Surrey.

Oldham.—Alterations and adaptations at police headquarters, for T.C. A. L. Hobson, B.E.: *Squire Ashton & Sons, Ltd., Cheapside, Oldham.

Preston.—200 houses at Kibbleton estate, for T.C. G. Berry, B.E.: *Richard Costain, Ltd., 707, Keyes House, Dolphin-sq., London, S.W.1.

Ryton-on-Tyne.—108 houses at Parkfield estate, for U.D.C.: *Direct labour (in lieu of previous tender and subject to M.H. consent).

Saddleworth.—Houses for U.D.C. 50 at Springhead and 12 at Denshaw: †A. Pellowe & Sons, Ltd., Chamber-rd., Oldham, approx. £1,365 and £1,530 per house; 25 at Greenfield: †Buckley & Roseblade, Greenfield, £1,286 per house (subject to M.H. approval).

Saltburn.—36 houses: *A. Robinson, Ltd., Linthorpe-rd., Middlesbrough.

Shepshed (Leices.).—32 houses at Glenmore site, for U.D.C.: *F. Perks & Son, Long Eaton, £38,048.

South Shields.—Factory for Wright's Biscuit Co.: *D. & J. Rankin, Stockton-rd., Sunderland.

Stamford.—50 houses at Drift-rd, estate, for T.C.: *Stamford Building Trades Employers' Association, £60,491.

Swansea.—76 houses at Bonymaen, for T.C.: *Direct labour, £74,627 (subject to M.H. approval).

Todmorden.—40 houses at Carr House Housing estate, for T.C. S. Greenwood, B.S.: *Todmorden & District Building Trades Employers' Association, 9, Joshua-st., Todmorden, £45,191.

Tonbridge.—30 houses at 2 sites, and roads and sewers and sewage disposal plant at Lychem-la., Capel, for R.D.C. W. N. Miller, E. and S. 2 at Court-la., Hadlow: *W. Cogger & Co., 47, High-st., Tonbridge, £2,542; 28 at Sychem-la., Capel: *C. E. Wallis & Sons, Ltd., Broadmead Works, Maidstone, £34,359; Sychem Wood, Capel, roads, sewers and sewage disposal plant: *S. G. Kitson, Aylesbury-rd., Bromley, Kent, £5,696.

Wandsworth.—Flats. Repair of war-damaged premises. Quantity surveyors, L. & C. Hannen & Partners, 9, Victoria-st., S.W.1, and Barclay & Russell, 1, Chase-rd., Palmers Green, N.: *Hall, Beddall & Co., Ltd., Pitfield Wharf, Waterloo Bridge, S.E.1, £12,750.

Wells (Somerset).—13 houses at West Pennard, for R.D.C.: *J. Leney & Sons, Glastonbury, £15,757 (subject to M.H. approval).

West Ham.—127 houses (third instalment Tidal Basin scheme), for T.C.: *Direct Labour, £147,317 (subject to M.H. approval).

Whitley Bay.—12 houses, for U.D.C. W. Roberts, S.: *R. A. Gofton & Sons, Front-st., Monkseaton.

Witham.—64 houses at Church-st., for U.D.C. A. E. Wiseman, Chelmsford, architect. Quantities by Lowe & Lowe, Chelmsford: *Percy Gowers, Chelmsford, £70,639.

Worcestershire.—Police house, garage and office, Broadwas, six police houses, Stourport, and six police houses at Malvern, for C.C. L. C. Lomas (F.), County A., 60, The Tything, Worcester: *George Bourne, Ltd., Alexandra-ter., Droitwich, £22,099.

York.—208 B.I.S.F. steel houses, for City Council: *W. Birch & Son, Ltd., Spen-la., York, £272,000.

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